

# THE CULTIVATOR

THIRD

TO IMPROVE THE SOIL AND THE MIND.

[SERIES.]

VOL. X.

ALBANY, N. Y., FEBRUARY 1862.

No. 2.

**PUBLISHED BY LUTHER TUCKER & SON**  
EDITORS AND PROPRIETORS, 395 BROADWAY, ALBANY, N. Y.

J. J. THOMAS, ASSOCIATE EDITOR, UNION SPRINGS, N. Y.

TERMS—FIFTY CENTS A YEAR.—Ten copies of the CULTIVATOR and Ten of the ANNUAL REGISTER OF RURAL AFFAIRS, with one of each free to the Agent, Five Dollars.

THE CULTIVATOR has been published twenty-eight years. A NEW SERIES was commenced in 1853, and the nine volumes for 1853, 4, 5, 6, 7, 8, 9, 60 and 61 can be furnished, bound and post paid, at \$1.00 each.

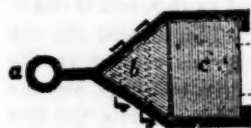
"THE COUNTRY GENTLEMAN," a weekly Agricultural Journal of 16 quarto pages, making two vols. yearly of 416 pages, at \$2.00 per year, is issued by the same publishers.

## The Cultivator & Country Gentleman.

### SEASONABLE SUGGESTIONS.

There are many small matters that require attention in winter. A gate not kept fastened by a good self-fastening latch, and swinging in the wind, will be more injured in a short time, than by months of legitimate use. An equal injury is sustained if the gate has sagged and the latch strikes some other part of the post. Take a mild day and attend to all of them. It is important to keep latches and hinges greased; and in order to have grease always at hand when wanted, bore an inch hole in some part of the gate-post, put in a lump of tallow, and plug it up. It is then always ready.

Every farmer knows that a gate is rapidly twisted to pieces when it has settled and has to be dragged over the ground every time it is opened and shut. The same injurious result is produced when snow drifts form an obstruction to its motion. All farm gates should therefore be so constructed as to be capable of being raised a foot or two, to avoid the snow. This raising of the gate is accomplished in various ways. One, which answers well where the amount of snow is small, is to make a screw and nut for the lower hinge, so that by turning the nut the hinge is lengthened, and the latch end of the gate raised several inches. Another way is to have two sets of holes through the hinge post, so that the hinges may be changed for summer and winter. A third is to have the gate so made as not to come within a foot and a half of the ground, sliding in a wide board into a groove in the posts whenever small animals are to be shut off. A fourth is the mode figured and described some months ago, and is here briefly repeated. The accompanying cut represents a horizontal section of the heel piece of the gate, at the hinge. The dark portion is



the iron hinge, clasping this heel piece; *a*, the ring which rests on the hook in the fixed post; *b*, a triangular timber, *b* e same length as the heel-piece, and firmly riveted to

the hinge; *c*, the heel-piece, which slides up and down in the clasping portion of the hinge; *d*, timber of the gate. Wherever the gate is placed, whether high or low, in the clasping hinge, there it remains, being kept there by its weight hanging outwards against the hinges. It is lowered or depressed in a moment by merely lifting the gate enough to prevent this side weight. The lower hinge should be as much above the lower end of the heel-piece, as it is desired to raise the gate in winter.

Examine stove-pipes, and see that they are all firm and safe. Do not allow the soot to accumulate in them, so that when it gets on fire some windy night it may set the house in flames. Never allow a stove-pipe to pass near wood. Burn the soot out of chimneys at some time when the roof has been wet with rain or melting snow, by lowering a bundle of straw or two from the top, and dropping a blazing wisp upon it. Probably nine-tenths of the houses that are burned in the country are ignited by the soot taking fire when the shingles are dry, and portions of it dropping on the roof. Keeping the soot well burned out of the chimney, and all that part of the roof near it, or the whole, whitewashed with a mixture of salt and lime, would be worth more and cost less than the best insurance.

What is the reason that so many living and bed-rooms are badly ventilated in winter? One reason is, it is so hard to slide the sash up and down. See to it now, that all are made to slide comfortably and easily, and if they are not hung on pulleys by weights, provide the best and most easily working catches. A few hours time, and a few dimes of expense, may save twenty dollars in doctor's bills, to say nothing of suffering and lost time. Never allow a broken pane to remain a day.

Never allow a squeaking door—pass around once a week, if necessary, and give every hinge and latch a touch with an oiled feather.

Lay in a good supply of wood for next summer. Do not let it lie long in large sticks, but saw and split it up without delay, that it may be drying. Fresh wood quickly dried, is far more valuable than half decayed from a long retention of sap. If it can be exposed to the wind for a few weeks before housing, it will dry quite rapidly.

To winter animals profitably, remember that COMFORT is the great saver of flesh, and consequently of food. Feed regularly, that they may not fret-off flesh in waiting for a delayed meal, for their stomachs are good chronometers; keep them clean, that they may not be subjected to the constant discomfort of dirt sticking in their hair and on their skins; let their quarters be warm, and especially avoid the annoyance of cold currents sweeping through cracks in boards or undersills on the windward side of

barns; let the air they breathe be well ventilated, for no animal can do as well that is taking foul or dirty air into the delicate tissues of its lungs fifty thousand times every twenty-four hours, or at every inspiration. Good wholesome food is cheaper than such as is poor or mouldy. It is more economical to feed in well constructed racks and boxes, than for animals to tread their food under foot, lie upon it, or mix it with mud. Feed often, regularly, and small quantities, that the food may not become unpalatable by lying long in the animal's breath. Always have a good supply of pure water at hand in the yard. And remember the old saying that "one foot of boards [for shelter] is equal to one pound of beef."

Avoid the common error of trying to winter many animals on little food. By this error much food is consumed with no increase of growth. *A few well-fed animals will manufacture a far greater amount of flesh with the same feed,* and they will command a much readier market. We recently visited a small farmer, whose whole herd of cattle was only eight; yet we are confident that they would sell for more money than any sixteen of the herds of most of his neighbors. He never tried to see how near he could come to starving them to death without doing it, and did not attempt to feed them on moonshine and sawdust.

Save manure. As wind is to the sailor, water to the miller, steam to the manufacturer, and money to the banker, so is manure to the farmer. Draw it out and spread it in winter, and early rains will soak it into the soil, and mix it with the particles of earth better than the finest harrow, and the clay of the soil will hold all the enriching portions, as the water charged with the liquid parts flows over it.

House and arrange all tools. The following plan, described in the last Illustrated Register we have found exceedingly convenient:

A place for everything, and everything in its place, will save many hours of searching, many weary steps, and much vexation every year. The tools should not only be in the room, but every one in its place, where the hand may be always laid on it in a moment. For this purpose they should always be hung up against the wall, and be neatly arranged. Nearly every tool can be hung on a spike or pin, or between two large nails. If hung perpendicularly, they will occupy less room, and may be quickly taken

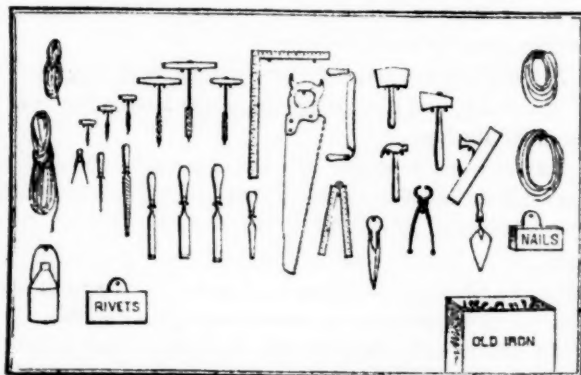


Fig. 2—Interior of Tool Room—Small Tools.

down and replaced. Fig. 2 shows the manner in which the smaller tools may be thus arranged; and fig. 3 exhibits the larger tools hung on the opposite wall of the same room. In order that each tool may be always in its place, the plan devised by Townsend Sharpless of Philadelphia, is the best. Hang each tool in its position; then draw its outline accurately on the board wall with pencil

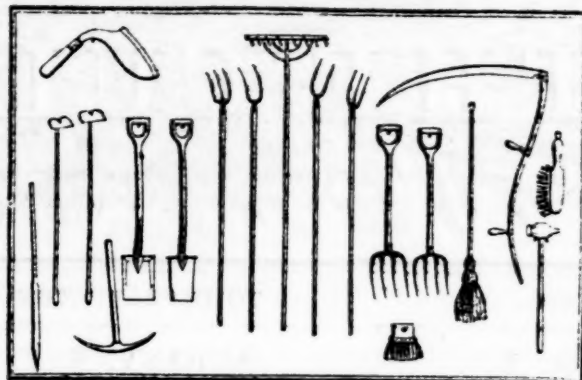


Fig. 3—Interior of Tool Room—Large Tools.

or chalk; then with a brush dipped in some dark colored paint, make a distinct representation of the shape of the tool. These outlines will not only show where the tool should be put, but show at a moment if any has been left out of place. The consciousness that there is such a tell-tale in the tool room, will stimulate any careless laborer to return everything which he takes out.

Let all broken or injured tools be repaired by the farmer if he can do it, and by the mechanic if the farmer cannot—paint such as need painting—and let all be ready for the active season on the opening of spring.

#### Farming as a Business Operation.

"The farm to the farmer, is what the ship is to the merchant. To undertake agriculture without means, is like sending a ship to sea without a cargo. The profit is to use them both to their highest capacity. If the trader cannot fill a ship, he had better sell her and buy a sloop. If a farmer cannot cultivate a hundred acres, let him sell fifty and put his whole capital on the remainder, and he will find his labor lighter and his profits greater."

Every year of our experience in farming, every season's observation of the operations of those around us, convinces us of the justice of the above anonymous paragraph. It is well added that "it is not the size of the farm, but it is the intelligence, the labor, the manure that is applied, that gives the profit." The farmer with more land than he can properly cultivate, is doing as wisely in his business, as the merchant who rents a large store which he has not goods to fill, from want of capital to purchase them. The manufacturer might as well expend all his means in buildings and machinery, and then neglect to keep them in use, as the farmer buy a large farm and but partially stock and cultivate it. It is true that large farms (of a hundred acres and over) are more economically carried on when one has sufficient capital to do it; but it is also true that the small farms, as both are usually managed, pay the largest profits.

This topic has frequently been made the subject of discussion through the agricultural press, so that we do not need to extend our remarks farther. We only offer these brief hints to recall attention to the matter—as one which those interested can readily think out for themselves.

THE REGISTER OF RURAL AFFAIRS FOR 1862.—An annual adapted at once to small means and exacting tastes. It covers all the interests of the farm and garden, and is full of useful hints and tasteful suggestions. The number for the coming year is particularly valuable for its chapter on the raising of fruit, the arrangement of farm buildings, and the treatment of domestic animals. It also exhibits the first principles of agricultural botany in a simple and agreeable way. [Price 25 cents.]—*Springfield Republican*.



## HOME COMFORTS.

Wealth is not essential to neatness. We have visited a large showy house, in disorder from cellar to garret—nothing neat, nothing homelike, nothing inviting; and on the other hand we have seen a low log cottage, white-washed outside, and embowered with roses, a model of neatness and comfort inside, with its white window curtains, and every article of furniture handsomely arranged. This was owing to the presence of the excellent housewife. But while skill and labor within are so important in this great element of high civilization, namely, HOME COMFORT, the surroundings of the house under the care of the owner should never for a day be forgotten.

The fences should be neat, if not costly.

Boards, hoops, barrels, and boxes, should never be scattered over the yard.

The back-yard as well as the front, should be in good order.

There should be dry paths, so that neither man nor woman need step in the mud to soil shoes and defile clean floors.

If gravel nor flagging cannot be had, let a carpenter make walks of planks.

Provide a wood-house for neatness, comfort and economy.

Provide a good frame for drying clothes, so that the line need not be stretched every washing day from peach tree to hitching post, from hitching post to smoke-house, from smoke-house to gate frame, and and from gate frame to the place of beginning—with a forked stick, board and pitchfork here and there to hold up the sagging line.

Fill the wood-house with dry fuel and a supply of kindling wood—and the owner will never have to pass through a cold, smoky kitchen, nor eat sour and half baked bread.

Keep everything neat and clean about the barnyard, stables, piggery, &c., so that the "fame thereof," in the form of various odors, may not be wafted on the breeze to the house.

Remember the refining influence on a young family, of a neat garden, neat door-yard, handsome blooming shrubbery, and the healthfulness to the female members, of providing an occasional seat or arbor, where they may spend a summer afternoon in sewing or study.

It is true that these comforts cannot all be enjoyed now, in the depth of winter; but much may be done in the way of procuring them, or making preparation for them. Materials for fences may be provided; gravel or flagging drawn on sleds for walks; wood-houses comfortably filled; rubbish either removed or avoided; barns and barnyards put in order, and kept neat and exemplary; garden seats constructed, and many other preparations made, which the farmer cannot think of stopping his summer-work to attend to.

Remember—the highest mark of civilization, is attention to domestic comforts, domestic happiness, and to elevating the condition and character of the female members of the family.

**SORGHUM IN ILLINOIS.**—Great preparations are making for this crop next season in this section. Thousands of gallons of syrup of excellent quality have just been manufactured in this county, increasing the confidence previously felt in its value and success as a farm product, both for home use and marketing. *G. Lee Co., Ill.*

## PENNSYLVANIA FARM SCHOOL.

We are indebted to Dr. EVAN PUGH, President of the Farmers' High School of Pennsylvania, for a copy of its Third Annual Catalogue, just issued. We are glad to be able to present a brief outline of its affairs, and to know that they now occupy a more hopeful position than ever before.

During the past three years the Pennsylvania Farm School has been going on under circumstances of great difficulty, owing to the unfinished state of the College buildings. But an appropriation of last winter by the State Legislature of \$50,000, has enabled the Trustees to advance in the work of completing the buildings, so that they will be entirely finished early next summer.

The main College building, we are told, is the largest edifice devoted to agricultural instruction in the world. It is, with the basement, six stories high, and covers an area of 19,200 square feet. It contains 165 dormitories, 10 by 18 feet square, and 9 to 11 feet high, affording ample room for 330 students. The building is also well supplied with commodious rooms for museums, scientific collections, lecture rooms and laboratories for chemical and philosophical study and experimentation.

The cost of construction is estimated at \$121,000. Other property belonging to the institution, including a farm of 400 acres, makes the entire property of the school worth about \$178,000.

The Farm School has been in operation for three years, and from the commencement has been well patronized. Heretofore it has been found necessary to exclude students from other States, in order to make room for those from Pennsylvania, but the enlarged capacity of the building will now allow students from all States to enter its classes.

The course of instruction is intended to be thorough in regard to the natural sciences in general, and especially so in regard to those having bearing upon agriculture. Any student having a knowledge of the ordinary elementary branches of an English education can enter its classes and graduate after a four years' course of study. The *first year* is devoted to a review and more complete study of the English branches. During the *second* the student is conducted into the elementary branches of the natural sciences, and the *third* and *fourth years* are mainly devoted to the latter. The mathematical course is about as thorough as that usually followed in other colleges, the scientific course is much more thorough than in literary colleges generally, while no attention at all is given to other languages than the English. It is the design of its friends to make the course as thorough and complete as that of the best European Agricultural Colleges, with such differences from them as the differences between American and European institutions generally require. Students who complete the course and pass satisfactory examinations and prepare dissertations approved by the Faculty, take the degree of Bachelor of Scientific and Practical Agriculture, *B. S. A.*

The college has just sent forth its first graduates, the class embracing 11 students. The Catalogue contains the titles and a general summary of the subjects of their graduating dissertations. The subjects are of an agricultural or manufacturing character, treated of with the aid of science. Artificial manures, plant ashes, slags of iron furnaces, iron ores, limestones and soils are submitted to chemical analyses, and the results given. One dissertation is devoted to the graminaceous plants in the neighborhood of the Farm School. The course combines manual labor with study. Each student performs three hours labor daily, and after three years experience the Faculty speak with full confidence as to the practicability of combining manual labor with study. All the work of the farm, garden and nursery is performed by students, all of whom are required to work; by this means the terms of admission are kept down at the very low rates of \$100 per session of ten months.

The next session will open on Wednesday, the 19th of February, and close on the 18th of December following.

## MANUFACTURE OF MAPLE SUGAR.

EDS. CO. GENT. AND CULTIVATOR—I would like some of your numerous correspondents to give definite directions for making maple sugar. Will you please make the request, or give the information yourselves? A. G. G. Hamilton Co., Ohio.

The first great requisite is to have all the vessels perfectly clean. Strict cleanliness should be observed throughout the whole process. Tin vessels are better than wood for this reason. If properly washed, they can never impart sourness to the sap. Made large enough to hold nine quarts each, they would cost about \$35 per 100, and six-quart-pails cost \$30 per 100. They may be made square or round, but the latter are better to clean and to keep their shape. They should be largest at top, so as to pack away in nests when not in use. The top should be strongly wired, like a tin pan, and a hole made under the wire enables it to hang on a nail driven into the tree, securing it thus from swine and other animals, and preventing the sap from being blown away by the wind. Old horse-shoe nails, straightened and sharpened, are the best.

The best spouts are made of thick tinned iron. When the vessels are hung as above described on nails, the spouts need not be more than three inches long. They should be widest where they enter the tree. After the sheet tin is cut up to the proper size, the concave shape is given to them by placing them between a convex and a concave piece of wood and giving them a brisk blow with a mallet. Ground sharp at the wide end, they are easily driven into a tree.

Never allow the sap to stand in the pails twenty-four hours—the fresher it is when boiled, the purer will be the sugar. While boiling, large quantities should not be poured in at a time, as that will stop it, and make irregular work; but a reservoir should be placed above the boiler, from which the sap may be drawn in a stream through a faucet, just fast enough to supply the evaporation. A little practice will enable the operator to judge how large this stream should be. Two boilers are better than one if the fire is made to pass from under one to the other—the first or hottest being chiefly for boiling down to syrup, and the second or coldest for heating the sap and doing the first evaporating. The faucet of fresh sap runs into the first, and a pipe or syphon, with faucet, conveys it to the second. Cook's patent sugar evaporator is very valuable for boiling the juice of sorghum, as it reduces the juice to molasses in less than half an hour by a continued process, and would be very useful for maple sugar, but less indispensable. It is on a principle similar to that of the two boilers above described, but more complete and perfect; the sap enters one end and flows from one side to the other many times by means of intercepting partitions, till it reaches the other end, by which time it is reduced to syrup, the proper current being given by raising or depressing the end, as the case may require.

Kettles are poor boilers—they waste fuel and make poor sugar. Shallow sheet-iron pans are much better. They may be kept cleaner, they evaporate more rapidly, make finer sugar, and effect a great saving of heat. In all cases, the boilers should be so set that a thin sheet of flame may pass under them. For example,—a sheet of flame, two inches thick, under a boiler, is as good as if a foot thick—the same amount may therefore be spread over six times the surface, and consequently be about six times more economical.

We have some good home-made pans, used for boiling sorghum successfully, made by nailing good thick sheet-

iron to plank, so that the sheet-iron formed the bottom and ends, and the plank the sides—the sheet-iron was secured to the plank by two rows of closely driven nails. The pans were about 8 feet long, and four wide, and 6 inches deep. These would be cheap, and very good for making maple sugar. The fire place should of course be a little narrower than these pans. The chimney should be high enough to cause a good draught.

To make good syrup, the sap must be reduced to one twentieth or one thirtieth of its bulk, or be boiled twice as much as sorghum juice. The syrup is then to be strained through flannel, and placed aside to cool and settle 12 to 24 hours. Then return it to the pan, and to every gallon add and stir a beaten egg and a gill of milk to clarify it, keeping it carefully from boiling till the scum has risen and has been skimmed off. Then boil it carefully until it will harden, which may be known by dropping some from a spoon into cold water. When this takes place, the liquid sugar may be then poured into proper vessels, and then the cakes placed in a box to drain. To make the sugar perfectly white, lay a few thicknesses of flannel on the top of the cakes while it is draining, these flannels to be wet and washed daily with cold water—they will thus absorb and wash out the coloring matter.

A hundred good sugar maple trees will usually make in a season, from two to three hundred pounds of sugar, if well managed; and if every precaution is observed to ensure cleanliness, prevent souring, boil speedily and without burning, and to clarify properly, a larger quantity of sugar will be made, it will be more saleable, and command a higher price; or if intended for home use, the smiles of the farmer's kind wife, when she sees such a beautiful article make its appearance, will more than repay him for all the pains he has taken to secure such excellent success.

## CRANBERRIES ON HIGH LAND.

The editor of the *N. E. Farmer* not long since gave his experience in the culture of cranberries "on dry, sandy loam land," full of weed seeds of various kinds. "The plants grew well enough, but the incessant pulling of weeds so often disturbed the runners that they did not have time to get a firm hold on the soil," so the plot was finally abandoned.

The experiment was then repeated on underdrained "swale" land, which before draining "would have been good corn land in a moderately dry season." The treatment and result are stated below; and we think them worth copying for the encouragement of interested readers:

"The process was to cover the rushes and meadow grass with coarse gravel, so that none of it could be seen. A little fine meadow muck, say fifteen bushels to the rod, was spread over the gravel, and the plants set about one foot apart in each direction. The plants were taken from a common cranberry meadow, and set from the middle to the last of April. The only thing done to them since has been to keep out all weeds and grass that have made their appearance; and this must be done with care, so as not to disturb the sod or plant, which was originally set, or the "runners" which have started out from it.

"On the single rod where the plants have been set three years, in the first week in September, we gathered one bushel of cranberries, and we have seen but a single lot in market that compares with them in size. On a rod set two years, eight quarts were gathered. These amounts were in clean, sound cranberries, with probably not an imperfect one among them, as they were gathered by hand."



## HINTS ON FARM IMPROVEMENT.

Farmers are generally anxious to improve their farms, or at least to reap the results of such improvement in better crops and greater profits, but very many of them have yet to learn the most direct road to prosperous agriculture. It lies rather through careful management of abundant labor and capital, than in stinting these to the lowest possible amount—the saving is in the prudent use of every means of progress, rather than in the miserly neglect of all which *seem* to be indirect aids, but which are really the trifles which ensure that increase above the cost of production which alone counts as profit.

Let us look at one of the simplest axioms of the better farming. "There is no way," says John Johnston, "that land can be so profitably improved as by grass kept in a vigorous state of growth." To grow large crops of grass we must have rich, drained land—naturally fertile or enriched by manure and thorough culture before seeding down, and by frequent top-dressings afterwards. It must be drained land—artificially drained if subject to stagnant water—or the best grasses cannot be grown, nor can it be brought into profitable rotation with grain crops. It must be thoroughly seeded—economy in grass seed "saves at the spigot to lose at the bung," in the less quantity and poorer quality of the product. And it must not be overstocked. The best pasture land, especially while young, can be ruined by feeding too closely and unseasonably—late in autumn and early in spring time.

But farm improvement by this method requires labor and care. Autumn top-dressing comes at a busy season, and requires previous attention to provide the requisite composted manure. Hence too many neglect it, even though convinced of its importance and of the greatly increased crops which follow the practice. Our better farmers do not practice economy of labor, striving to get along with as *little as possible*. They have found that plenty of help for all the operations of the farm is the only way of productive and profitable farm management.

A hint or two on getting better grass from our meadows and pastures next season. Let no mild weather tempt us to allow a hoof upon them during the winter. Better buy additional forage for our stock. Where a mixture of clover prevails we should give a top-dressing of plaster in the early spring time. It has been found profitable to mix ashes with plaster for this purpose, and we should never sell a bushel of ashes from the farm, but rather buy instead. If intended for pasture, let the grass get a good start before turning on stock; the product will be much larger than when fed closely during the whole season. Low land pastures may be fed early with less loss, and especially any containing the swamp grasses. We have found it good policy to change pastures quite frequently, benefiting both the pasture and the grazing animals. Farms so situated that they may be irrigated at small expense, should enjoy this great means of enhanced productivity. Meadows should be top-dressed with fine manure after haying—certainly whenever the crop falls below two tons per acre. If the grass land is to be plowed up for tillage another year, top-dressing in autumn will be found the best means of applying manure for the future product. But we need not extend these hints farther in this connection—we have dwelt upon them freely heretofore.

The farmer, anxious for improvement, is never at a loss

for employment upon his farm in winter. There are a thousand things he can do to enhance the comfort and thrift of his stock, and to increase the amount and value of his manure. And it should not be forgotten that the richer and better our stock are fed, the more rapid and profitable their growth, and the far greater value their manure.

Preparations for the labors of the coming seed time can be largely made—fences, tools, seeds, and, no less important, plans for the work can be got in readiness in this time of comparative leisure. Too many are engaged off their farms at this season—in work, perhaps, bringing in more ready money—but practically of far less advantage to themselves as farmers. Others idle away the winter to grumble at bad crops and the hurry of farm life during the summer and autumn. With the new year there is room for all to "turn over a new leaf" in the volume of progress.

## AGRICULTURAL SOCIETIES.

THE UNITED STATES AGRICULTURAL SOCIETY held its Annual Meeting at Washington, Jan. 9, re-electing President Hubbard, Secretary Poor, Treasurer French, and nearly all the old vice-presidents. The executive committee was re-organized, and consists of Marshall P. Wilder of Massachusetts, Frederick Smyth of New-Hampshire, Isaac Newton of Philadelphia, Charles B. Calvert of Maryland, Legrand Byington of Iowa, J. H. Sullivan of Ohio, and M. Myers of California. President Lincoln's commendation of the establishment of an agricultural and statistical department was warmly commended, and he was elected an honorary member. There was a decided expression of opinion against a National Exhibition, unless it can be held at Washington.

VERMONT.—The Annual Meeting of the Vermont State Agricultural Society was held at Bellows Falls on the 3d inst. The President, Hon. H. Henry Baxter, being absent, Hon. Edwin Hammond of Middlebury, called the meeting to order, and after the usual reports, the following gentlemen were elected officers for the ensuing year:

President—H. HENRY BAXTER of Rutland.  
Vice-Presidents—Edwin Hammond, Middlebury; J. W. Colburn, Springfield; Henry Keyes, Newbury; John Jackson, Brandon.  
Recording and Cor. Secretary—Daniel Needham, Hartford.  
Treasurer—J. W. Colburn, Springfield.  
Directors—Frederick Holbrook, Brattleboro; E. B. Chase, Lyndon; H. S. Morse, Shelburne; D. R. Potter, St. Albans; Henry G. Root, Bennington; David Hill, Bridport; John Gregory, Northfield; Elijah Cleveland, Coventry; Nathan Cushing, Woodstock; George Campbell, Westminster.

CONNECTICUT.—The Annual Meeting of the Connecticut Agricultural Society was held at Hartford, Jan. 8. The treasurer reported a balance of \$6 on hand, and an executive committee was appointed, with instructions to report next May what town presented the greatest inducements to have the Fair held in it. The old officers were re-elected as follows:—President, E. H. Hyde, 2d, of Stafford; Corresponding Secretary, Henry A. Dyer of Brooklyn; Recording Secretary, T. S. Gold of Cornwall; Treasurer, F. A. Brown of Hartford; Chemist, Prof. Johnson of Yale College.

KENTUCKY.—The Seventh Annual Meeting of the Kentucky State Agricultural Society, was held at Frankfort, Dec. 4th, 1861, the President, Hon. L. J. BRADFORD, in the chair, who was subsequently unanimously re-elected to fill the same position for the ensuing year (1862,) with the following Board:—

Vice-Presidents—J. P. Swigert, Franklin; 2. J. B. O'Bannon, Jefferson; 3. John G. Holloway.  
Directors—L. O. H. Burbridge, Bourbon; Zeb. Ward, Woodford; Dr. L. P. Tarleton, Fayette; Caleb Walton, Harrison; and J. H. G. Bush, Clarke—2. G. Mallory, Jefferson; S. T. Drane, Shelby; Geo. Denny, Garrard; Alf. Allen, Breckinridge; and Felix G. Murphy, Nelson—3. John P. Campbell, sr., Christian; R. B. Ratliff, Caldwell; Edward Rumsey, Muhlenburg; R. C. Harrold, Union; and J. J. Towles, Henderson.  
Treasurer—J. W. Tate, Franklin.  
Secretary—Col. J. S. Wallace, Louisville.

[For the Country Gentleman and Cultivator.]

**Agricultural Notes in Monroe Co., N. Y.—No. V.**

Monroe County is one of the most beautiful portions of the Empire State. The climate is very salubrious; the soil usually very productive; and there are very few repulsive and undesirable localities—and even such places may be easily reclaimed by a judicious system of underdraining and a proper system of husbandry, and thus rendered very desirable and valuable for agricultural purposes. So far as my observations extended, I found it very well adapted to all kinds of fruit that will flourish well in any other county; and the numerous flourishing orchards in full bearing, and the still greater number of young ones, which are usually well cared for, and are growing rapidly, and the vast nurseries of the choicest varieties of every desirable kind of fruit trees, and vines and bushes, which are cultivated in the vicinity of Rochester, which is the county seat, and one of the most beautiful cities in Western New-York, assured us that farmers are by no means indifferent in reference to good fruit trees and good fruit. I took notes of vast numbers of objects of special interest to farmers, which I must pass by unnoticed, for want of room in the columns of the *Co. GENT.* But I cannot forbear to record a cordial reception and pleasant interview with D. D. T. MOORE, the Editor of the extensively circulated, and ably conducted, and doubly welcomed agricultural and family periodical, about whose premises, both at his residence and office, every thing exhibited signs of order, neatness and prosperity. We called also at the office of Mr. J. HARRIS, Editor of the *Genesee Farmer*, which I have met with wherever I have visited, both in New-England and in Ohio.

Omitting details of the system of farm management at the Western House of Refuge for Juvenile Delinquents, or unruly boys—which by the way is one of the most useful institutions in the State—we pass on to the far-famed and very extensive nurseries of Messrs. ELLWANGER & BARRY, which occupy about 500 acres, and everything appears to be executed in real Genesee farmer style. Probably there is not another nursery in the world which equals or surpasses this Mount Hope nursery for reliable varieties of choice fruit trees and vines, and for the space which it occupies. It is truly amazing to see what vast fields are devoted to nurseries of choice fruit trees on almost every side of the "flour city." We meet with more nurseries than anything else, and the wonder is, where will they ever find a demand for so many fruit trees, vines, shrubs and flowers?

**The Soil of Monroe County**

Is usually remarkably fertile, and perhaps for real agricultural purposes—for carrying out successfully a good system of mixed husbandry—it is second to no county in the State, while it is far superior to many others. In some towns we meet with a reddish loam, partaking of rather an argillaceous character; while in other localities we meet with calcareous clay; and then we meet with gravelly loam, and sandy loam. In most places that I passed through, there appeared to be a sufficient quantity of lime and gypsum, or plaster, in the soil to render it a good soil for the production of wheat and coarse grain. A large proportion of the soil of this county is of such a character that it could not be improved by underdraining, as there is no necessity for it; but there are thousands of acres, which are cultivated from year to year, which do not produce half as much per acre as they would, were the surplus water carried away in underdrains. The soil of this county will produce almost anything that a good farmer desires to raise, including fruit, vegetables, grain and grass.

In many of the townships, vast quantities of Irish potatoes were formerly raised, and shipped to New-York

city on the Erie canal; but since the potato disease appeared, this kind of vegetable has not been cultivated except to a very limited extent.

**The Cultivation of Wheat**

In the county, thirty or more years ago, was attended with remarkably good success. Indeed, wheat was the great staple with farmers, for many successive years. Many old farmers with whom I have conversed, have pointed out to me whole farms, here and there, and many large fields, where the yield was seldom less than forty bushels of most beautiful wheat per acre; and in many instances, the yield would be fifty bushels. But at the present time, on the same soil, the yield is expressed by any number from eight to thirty bushels per acre.

"We cannot raise wheat now, as we could once," was the oft repeated expression among old farmers; and the reason assigned, usually, was, "the insects—the wheat midge makes such ravages in the crop." Thirty or forty years ago, they had all the advantages of a most excellent virgin soil, which was as well adapted to wheat as any other crop; and had there been proper care exercised with reference to keeping the soil in a good state of fertility, by making and applying as much barn-yard manure as was practicable, there never would have been such a decrease in the number of bushels per acre, as farmers now talk of. Old farmers have told, that "here on these fields we once could raise three crops of wheat in succession, and the third would be fully equal to the first." Of course, under such a system of farm management, the most productive soil that can be found in the country, would fail to produce a remunerating crop, after so many years of hard cropping. I was assured that thirty years ago, they were sure of a good crop of wheat, even when the soil was very poorly cultivated. But, at the present time,

**The Manner of Preparing the Soil for Wheat**

Is very different, and costs more than double what it then did.

I alluded in a former communication, to one of the ways of preparing the soil for wheat in this county, which was by sowing or drilling in, after a crop of peas had been removed. But, I found that all progressive farmers who adopt this course, always calculate to have a good supply of rich and well-prepared barn-yard manure to apply to the soil before the wheat is put in. In some instances, the manure is hauled to the field as soon as the peas have been removed, and is plowed under, and the wheat put in as soon as it is practicable to do it after the first of September.

Another mode, which is preferred by some good farmers, is to remove the peas as early in August as practicable, and plow the ground from six to eight inches deep; and then, about the first of September, spread the manure very evenly and thin over the entire soil, and then plow it under with a gang plow, adjusted to run about four inches deep, after which the wheat is drilled in.

Another practice which is adopted more or less, is to haul the manure from the barn-yard in the former part of the season, and pile it up in the field during the summer, forking it over sometimes, in order to have it well rotted and finely pulverized; and after the ground has been plowed once with the common plow, and sometimes crossed with the gang plows, the manure is neatly spread on the surface and the ground thoroughly harrowed, by which the manure is about all covered with more or less earth near the surface of the ground.

**Growing Wheat on Sod Ground**

Is adopted with good success in many parts of the county, by good farmers, who assured me that as a general rule this practice returned them about as good crops—when the soil had not been greatly impoverished by injudicious management—as any other practice which they could approve.

About the first of September the sod is neatly plowed about eight inches deep, with a lap furrow, after which a roller is passed over it, when a thin coat of good barn-yard compost is spread evenly over the surface, and is



either well harrowed in, or is turned under very shallowly with the gang plows, which usually cut from three to four feet in width at once through. The wheat is then put in about the fifth or tenth of September.

Growing wheat on clover lay is practiced in many instances. When the clover is in full bloom, it is turned under with the furrow about six or seven inches in depth, during the latter part of July; and if the clover is the large kind, which is considered preferable, it is not plowed in until the former part of August. Of course, circumstances will determine the most proper time for plowing it under. If the clover is pastured for several weeks in the spring, it will not have attained its full growth until after the middle of summer has passed. The soil is afterwards plowed with gang plows, sometimes twice before the seed is put in. I met with no instances in the county, where a top-dressing of barn-yard compost was applied to the soil, when a crop of clover was turned under.

The kinds of soil where these practices are mostly in vogue were where sandy and loam predominate, and some gravelly clay, with a slight mixture of clayey loam. On such soils—which seldom need any underdraining—most good farmers appeared to agree in this opinion, that they would get no better crops by plowing the soil with the common plow, the same depth of the first plowing, than they now do by simply working over a few inches in depth of the surface with gang plows.

In one of our carriage excursions we passed a large farm of about 300 acres, with large fields, where vast quantities of heavy oats were being harvested, and the soil, crops, and everything else, exhibited unmistakable signs of thrift and good management; and I was assured that the system of management which was adopted here was to manure the soil in the spring for an oat crop, and as soon as the oats were removed the soil was plowed and afterwards gang-plowed, and the wheat drilled in, and that in this way that farm had been made to pay for itself three times, and now was in a good state of fertility, and a most valuable farm for wheat or any of the cereals.

#### **The Philosophy of Shallow Culture for Winter Grain.**

When a piece of woods is cleared off and the ground simply harrowed thoroughly, without plowing, and it is sowed with winter wheat, the soil must be uncommonly wet, and the winter must be very unfavorable indeed if that wheat is much injured by freezing and thawing. And there is a very cogent and philosophical reason why winter wheat is injured less by freezing and thawing on such soil than it is on old ground.

We all know that when we set a stake or post perpendicularly in the ground about one foot deep the frost will soon heave it to the surface; but when it is set at an angle of forty or forty-five degrees, it will remain about as deep as it was originally set until it is rotten; because as the soil freezes and thaws it is lifted with and settles back with the soil.

The sod of grass ground is raised by the frost bodily, and settles back bodily when it thaws, and for this reason the roots are not all lifted out by the freezing and thawing in winter.

Now when wheat is sowed on new land that has never been plowed, the roots spread out almost horizontally on the surface of the ground, and thus form almost a complete mat, so that when the soil is expanded by freezing, it is raised bodily, roots and all, and thus it settles back, when it thaws, to its original position, without severing any of the roots of the plants. In new land that has not been plowed a large proportion of the vegetable matter and the elements of fertility are near the surface of the soil, and consequently the roots spread out horizontally much more than they do vertically. But when the soil is deep, and the vegetable matter is thoroughly incorporated with it, and when the elements of fertility are more abundant six or eight inches below the surface than near the surface, the roots will strike almost perpendicularly downwards. Therefore when two or three inches of the surface of the soil comes to freeze, the plants are lifted, and the roots must

either give way at the lower ends, or be severed just below the frozen earth. It is easy to perceive, when such is the case, why and how readily the wheat plant is injured and thrown out by freezing and thawing in the winter or spring.

Reasoning from analogy on the subject, most good farmers in Monroe county, who have a reputation for raising the best crops of winter wheat, adopt the practice of

#### **Manuring the Surface for Winter Wheat,**

In preference to mingling the manure thoroughly with the soil, as deep as it is plowed. By plowing the soil to a good depth once, and by work only a few inches in depth of the surface—rendering it fine and mellow—and by spreading finely pulverized compost on the surface, and simply harrowing it in about the time the grain is sowed or drilled in, the roots, for the most part, will strike out horizontally, or nearly so, and will become so thoroughly interwoven with each other near the surface, that they are not drawn out at the surface, as they are when they strike down nearly vertically; but the entire soil rises and settles back in the same manner as sod ground does, without heaving out the plants.

I have made particular inquiry of those farmers who have adopted the practice of manuring on the surface, in every locality where I have travelled during the past season, and I have found that in most instances they are satisfied that winter grain will not suffer so much injury from freezing and thawing, when the manure is well rotted and spread thin on the surface, and harrowed in about the time when the grain is put in, as it will if the manure is plowed under.

This subject is a very important one to farmers in those regions where winter wheat is one of the great staples, or even where but little is raised; and I am satisfied that when our wet soils have been well underdrained, and when a good supply of compost is made for surface manuring in autumn, there will not be so many failures in winter wheat, providing the wheat midge does not injure it.

S. EDWARDS TODD.

[For the Country Gentleman and Cultivator.]

#### **EXPERIMENTS IN DEEP PLOWING.**

The subject of deep tillage has for several years engaged the attention of many practical agriculturists, and the agricultural papers have often called the attention of their readers to it. I have reflected much on this subject, and have been gradually gauging my plow deeper and deeper till I reached the maximum depth for an able team, with a single furrow—but I did not stop here. The soil of my farm is a clayey loam resting on a tenacious subsoil, which passes off the surplus water too slowly for a healthy vegetation in a wet season.

Two years ago I bought one of Starbuck's subsoil plows, for the purpose of making an experiment in deep plowing. I operate with one pair of horses, using the Peekskill plow, No. 22, gauging it six inches for the first or sod furrow, and following this with the subsoil plow at a gauge of eight inches, making fourteen inches in all, plowing large lands, and alternating plows every round.

Last year I took a field of five acres, and plowed one-half of it as above stated, and half with the Peekskill plow alone, going twice in the same furrow at a six inch gauge, making twelve inches in all. I did not perceive any difference in the crops this year, on the parts differently worked. The subsoil plow is quite narrow, and does not stir the earth as wide as the first plow cuts, nor does it bring any of its furrow to the surface.

In working with the Peekskill plow alone, I did not duplicate the furrow till after I had cut two sod furrows. The outer edge of the third sod furrow, and so the whole of the piece, falls into the deep furrows and lays, not flat, but at an angle of about forty degrees, and the second or subsoil furrow is turned over on the sod furrow, so that when the field is done it will present alternate layers of sod and subsoil furrows.

I have observed on cross-plowing land plowed as I have described, that it requires less strength of team to plow a certain depth than before. I do all my sward and subsoil plowing in the fall for two reasons. First, I have more time to do it, and the weather is cooler and better adapted for severe labor. Second, the action of the frost and winds of winter and spring, leave it in a better condition to work in the spring crop, than spring plowing. In these two ways I have cultivated thirty acres, fifteen of it the past autumn.

I have not pursued the above experiments long enough to give an opinion based on actual results. It will take several years to do it. Vegetation requires air, light, heat and water, in certain proportions, to ensure a good crop, and any excess or diminution in any of these affects the crop.

Deep plowing will aid the drainage from the surface, give a free circulation of air in the loose earth, and carry with it the warmth of the atmosphere.

The under stratum of earth thrown up by deep plowing may not be of immediate benefit. Every observing farmer has noticed that the earth thrown up from cellars and wells, is non-producing at first, but after being warmed by the sun, and fanned by the wind, loosened by the frosts of winter, and absorbing nutritious gases from the atmosphere, has become productive.

The above reasons satisfy me that deep plowing will give a deeper soil, with equal fertility of the soil moved by the ordinary depth of plowing. Nor is it reasonable to suppose that earth, that has remained since "the flood" unmoved, will in ten decades become compact and want re-subsoiling.

So far as I have experimented, I prefer to use one plow continuously, being easier for the team, less perplexing to the plowman, and more effectually stirring the earth.

While on the subject of plows, I would state that I was induced last fall to try one of Remington, Markham & Co.'s steel plows, made at Ilion. I was then plowing a piece of land that was so adhesive that the Peekskill plow would not clean, and made it laborious for my team. On taking the steel plow, the horses walked off as if eased of half their load, and the furrow left the mould-board as readily and perfectly as one could desire. I have used it in all kinds of plowing, and think they are "the" plow for any soil that adheres to an iron plow. They are strong and well made, and as good a turn to the mould board as any plow I have ever seen on exhibition at any of our State Fairs, (I have attended some of them,) and would recommend the "Steel plow" to all those farmers who have soil that will not clean from a cast-iron plow.

I hope to hear from farmers who have made or will hereafter make experiments, in deep and subsoil plowing, and the conclusion of their experiments; and I will do the same.

HIRAM WALKER.

Oswego, Co., Dec. 16, 1861.

[For the Country Gentleman and Cultivator.]

### Hints on Growing Mangel Wurtzels.

The cultivation of field beets, or mangel wurtzel, for feeding purposes, is certainly not sufficiently appreciated by farmers generally; and the quantity annually raised, (which, according to the State Census of 1855, is less than 30,000 bushels,) would seem to show that in New-York State, at least, the common estimate of these roots bears no proportion to their actual value. Compared with either carrots or turnips, (the roots most usually grown,) in respect to amount of nutrition afforded by each, mangel wurtzels will be found to be the most preferable roots; containing as correct analyses prove them to contain, from 11 to 15 per cent. of the flesh-forming principles, according to variety, the Orange Globe yielding the largest quantity, while the flesh-forming principles contained in either carrots or turnips fall considerably short of this in amount. Yet notwithstanding these facts, the mangel wurtzels continue still to be in fact, what the etymon of their name imports, viz: the "root of scarcity." But in thus comparing the relative value of these different roots, I would not be understood as speaking in any

way disparagingly of the less nutritious kinds; for I believe that the cultivation of any of them cannot profitably be omitted or neglected by the farmer, and should rather, therefore, commend the practice of raising all three. And this I conceive would be an eminently judicious course to pursue, as it need not be attended with the least additional labor or expense; for the required aggregate quantity would be produced in proportionably diminishing that of each. And, moreover, this would seem to be carrying out the apparent intention of nature. For turnips are more especially adapted to early feeding, and usually deteriorate in quality as the spring advances; while the mangel wurtzels, on the contrary, are best adapted for late feeding, and uniformly improve in quality until the months of spring. Another circumstance in their favor, is, that they can be easily grown upon soils not suitable for turnip culture.

The soil most proper for field beets is a rich loam, of a clayey rather than a sandy character, and where the organic matter is fully and thoroughly decomposed and distributed through it. It should also be perfectly free from stones, and made mellow by deep and thorough cultivation. The subsoil plow, I take occasion here to remark, cannot be dispensed with in the cultivation of roots, but should be run at least along the line of the rows to the greatest depth practicable. I refer here to those improved plows which while they disturb and disintegrate the soil to the depth they may be run, yet do not open any furrows, and on this account they are eminently useful in marking out the rows for all cultivated crops, or those requiring the frequent use of the cultivator. Beets may be grown upon any soil containing a moderate quantity of moisture and a large quantity of nutritive matter. But on sandy soils they attain to a less size unless the season should be favorably wet or rainy. On a light soil rich in humus and moist by situation, it becomes watery and very thick; but are liable to be hollow in the middle, and are difficult to preserve in good condition. The soil should be deep and drained as thoroughly as possible, and the subsoil should not be either a stiff, cold clay, or an open stone gravel. It should be kept thoroughly pulverised during the growth of the plants.

MANURING.—As the analysis of plants has been found to furnish the best criterion for preparing manures most suitable to their growth, it may not be inappropriate to insert, in this place, the following table by Prof. Way, which exhibits with doubtless satisfactory approach to accuracy the extent to which the soil is exhausted of its elementary constituents in the production of twenty tons of bulbs, and four tons of leaves, of mangel wurtzel plants:

	lbs.
Phosphoric acid.....	21
Sulphuric acid.....	23
Lime.....	21
Magnesia.....	23
Potash.....	133
Soda.....	74
Chloride of sodium (common salt).....	160

A glance at the table will readily show that ashes and salt are the essential requirements of this class of roots and should be liberally applied to the land on which they are grown. Bone dust also forms a necessary and useful adjunct to every compost designed to be applied to this, or similar crops. Barn-yard manure has been found less serviceable when newly applied for this crop, than when decomposed, and hence enables the growing plants to more rapidly appropriate its nourishing properties to their use than by the former mode.

USES.—Beets are very suitable as food for milch cows being both succulent and nutritious—properties which greatly conduce to an increased quantity of milk, and which is all the better for being perfectly free from that bad taste so unavoidable when they are fed on turnips. Beets are also peculiarly useful for feeding to fattening cattle, though it is necessary to use them to it by degrees, as they eat them with such avidity as sometimes to cause danger of a serious nature. Swine will do remarkably well when fed on them. The leaves, too, should not be wasted, as stock will thrive well on them, if fed in sufficient quantities.

J. M. HARPER.

Oswego Co., N. Y., Dec. 9th, 1861.



[For the Country Gentleman and Cultivator.]

### Osage Orange Hedges in New-Jersey.

LUTHER H. TUCKER—When I met you at the Queens Co. Fair in Oct. last, we had some conversation respecting the Osage Orange fence. I then stated to you that I had gone into it upon a large scale, and had realized far beyond my expectations. You requested me to give you my experience in regard to that plant as suitable for a live fence. It is with much pleasure that I now can give it.

Four years ago I subdivided the whole of my farm, containing 140 acres, which required about 25,000 plants, setting them 6 inches apart. I now have in the aggregate two miles of fence which will be four years old this spring, and it is now a perfect fence against all animals. Its rapid and vigorous growth proves it admirably adapted for that purpose. The deep tendency of its roots enables it to withstand the severe drouths of our climate, and its thorns are of such a protective character as to answer every required purpose. It has no equal as a hedge plant.

There is no plant, so easy of cultivation, better or so well adapted for a protection fence on our soil and climate, as the Osage Orange. It will grow and flourish in all strong rich soils, whether they are upland, alluvial, sandy, clay, wet or dry. It proves capable of enduring the greatest extremes of heat, moisture or drouth, and the lowest temperature to which our region of New-Jersey has been subject to. There is nothing to my mind so beautiful or so secure a barrier against all animals, and for all ordinary purposes as hedging, and no country possesses a better plant than the Osage Orange.

As I required a large quantity, I found that I could procure them cheaper in Illinois than here. They cost \$3.00 per 1000 plants, delivered in New-York city.

The entire cost of plants and planting did not exceed \$100. The cost of taking care of it since has been the labor of one man for one month each year. It is now matured, and will only require cutting every fall. It is therefore the cheapest and best fence that has ever been adopted, and will in my opinion supersede in this quarter all other kinds of fence.

Any gentleman wishing in detail, the mode of planting and cultivating until it is matured, can call upon me at Eatontown, N. J., and see my fences, or write me and I will give them my experience in that matter.

Eatontown, N. J., Dec. 25.

THOS. BELL.

[We are quite sure that the interest now taken in the Osage Orange as a Hedge Plant, is sufficiently general to warrant our asking from Mr. BELL, for publication, those details as to the modes of planting and cultivation, as illustrated in his experience, which he kindly offers to communicate by letter on the application of individual readers. The success he has attained, and the extent of his experience, are such as to give a double value to the information he can impart; and many beginners will be benefitted if he will thus allow us to publish, *as fully as possible*, the particulars of his practice. Wherever the climate is not too severe,—the risk of sudden changes and extreme cold too great—the Osage Orange must constantly grow in public favor, as other fencing material becomes more scarce. EDS.]

[For the Country Gentleman and Cultivator.]

### Farm Mills—Washing Machines—Root Cutters.

MESSRS. EDITORS—In the April No. of THE CULTIVATOR is a notice by your respected correspondent, S. E. TODD, of Lyon and Phillip's Farm Mill. I would like to know where said mill can be procured—the price, and how to go to work to sharpen the grinding parts of it, which I

conclude are of iron—when dull. If some of your readers would give their experience with the Union Washing Machine, they would greatly oblige.

Although farmers generally have neither time nor dollars to throw away, they sometimes pay too dearly for their whistles by buying implements from recommendations given by interested advertisers.

I was last winter induced from advertised recommendations, to purchase a Willard's Root Slicer, made by Nourse, Mason & Co., which utterly failed, from its flimsy construction, to do what it was represented to do. The frame-work, where in fact no great amount of strength was required, was strong enough for an ox-cart, but the disk or cutting part, where strength was required, was only a thin plate of cast iron, perforated so near the shaft as to still weaken it. It left a part of each turnip uncut, and these pieces crowding down between the frame-work and disk, pried it off in such a manner as to crack the plates from one hole to the other, until the crack went all around the shaft, and of course rendered it useless.

Danville, C. E., Dec., 1861.

A BUCKWHEAT FARMER.

[For the Country Gentleman and Cultivator.]

### SPANISH CHESTNUTS.

I have observed by several articles in the COUNTRY GENTLEMAN that this valuable tree, both for ornament and use, is receiving some attention, which it well deserves. Although it has been in cultivation here for many years, and is well adapted to our soil and climate, yet comparatively few persons have it growing on their lands. As has been remarked, there are a great variety of them, and the seed of the finest will no more certainly reproduce the same good qualities of size and productiveness, than will the seed of a superior apple. The only way to ensure the best kinds is to graft or bud from such as are the most desirable to propagate, which has been adopted here for many years.

There is a large tree on the farm adjoining this, belonging to Charles Jessup, from which, twenty years ago, I used to purchase a part of the crop at twenty-five cents per quart—the price usually obtained in market, to plant and raise seedlings in the nursery; but that plan has been abandoned, as it required a much longer time to obtain the fruit, and it was not reliable when produced, but few trees in a hundred yielding chestnuts in quantity and size equal to the original tree from which the seed came. Edward Harris of Moorestown, an enterprising gentleman, who has done much for the improvement of agriculture in this State, especially by introducing his fine stock of Norman horses, Diligence and Napoleon, and several brood mares, planted an orchard of twenty-four trees of seedling Spanish chestnuts, which varied in their products about as widely as the same number of apple or pear trees would have done. The greater part of them were but little if any better than common native varieties; one or two have the quality of yielding the largest sized chestnuts, and mostly three in each burr; several yield two large chestnuts and one defective, and others but one large chestnut and one or two imperfect.

The native variety is suitable for stocks, and by innoculating them from those most desirable to cultivate we not only insure the good qualities of the tree from which the scions are taken, but get the fruit much earlier than from seedlings. We frequently gather several quarts along the nursery rows in the fall from the young trees before they are removed to the orchard. Most farmers desire one or more shade trees in their pasture fields, to protect stock from the excessive heat during summer, and if care is taken to plant the best variety of Chestnut, it would not only answer for ornament and shade, but yield a crop in the fall worth \$8 per bushel, and furnish the most valuable lumber for fencing or building material.

Cinnaminson, N. J.

WILLIAM PARRY.

[For the Country Gentleman and Cultivator.]

### St. Lawrence County---Northern New-York.

MESSRS. EDITORS—Thinking that a few items from this section, might be of interest to your readers, I will give a few. This county is chiefly devoted to the dairy and stock business.

There are about 8000 cows in this county, and the number is constantly being increased, as most of the farmers are convinced that it is useless trying to raise grain (for sale,) in competition with the farmers of the fertile West. And the same is also true of beef cattle—our winters being so long and severe that we cannot raise cattle with anything like the profit, even when we take into account the difference in cost of transportation, that farmers in more favored localities can. I do not wish to be understood as saying that grain and cattle can not be produced at a profit, but that other branches of farming are more profitable.

Generally the average annual return per cow, in our large cheese dairies, has formerly been from 35 to 40 dollars, but at the war prices which prevailed the past season, this amount has been very sensibly reduced. Butter-making is not considered as profitable.

Many of our cheese makers, have adopted a new plan in making cheese. They place the night's milk in the cheese-vat, and in the morning skim the milk. This of course lessens the richness of the cheese, but many contend that it is not possible to so mix this cream with the morning's milk, that it will not escape with the whey. This is no doubt true.

Some of our best cheese makers have adopted another plan which obviates this difficulty. It is to heat this cream in a pail, set in a kettle of water, to about the temperature of new milk, and return it to the rest of the milk.

This county was greatly affected by the starch mania which prevailed so extensively a few years since. There is a starch factory on almost every brook and river—sometimes a half dozen within as many miles of each other. Their first cost varies from \$1,200 to \$2000. At present they are considered the poorest kind of property. In 1855, starch was worth from 5c. to 6c. per pound, but for the last three years it has been dull at 3 to 3½c. But few factories were run last season, and I believe none at all this season. Potatoes were worth 25c., and it was doubtful if they would pay expenses. From 8½ to 9½ lbs. is the average yield per bushel—10 lbs. is an extra yield.

This is comparatively a new county, but when its resources are all opened up, it will be the "banner" county of New-York. One very favorable feature, is the natural meadows which border all the small streams and some of the larger rivers. These are very fertile and produce undiminished crops of hay, of good quality, year after year.

There is a large tract of unimproved land for sale, in the south-east part of this county. About 30,000 acres of timbered land are offered at two dollars per acre. There is some good farming land in the tract, but its general reputation has not been such as to tempt a very great immigration.

Fruit prospects are not good. Apple trees do well for 8 to 12 years, but after that rapidly decay. But this should only be an incentive to more thorough culture and care.

Under-draining ground for orchards, has never been practiced in this section that I am aware of.

Large quantities of pork are annually raised, but at the present prices of grain and pork there cannot be much profit in the business. The only way in which we have been able to realize any profit, is to make Mr. Porker work for his board during the summer months, composting manure. But this method is not generally adopted.

Produce is very low. Wheat is worth \$1, Oats 31c., Corn 55c., Rye 50c., Potatoes 25c., Hay \$6, Butter 17c., Cheese 6c. There is a good deal of butter unsold yet, being held for 20c.

ST. LAWRENCE.

### REFINED SORGHUM MOLASSES.

The Committee of the Illinois Horticultural Society make a satisfactory report in a late number of the *Prairie Farmer*, of their examination of the Chicago Sugar Refining Company, whose works, it is stated, have been erected at an expense of \$60,000 for the machinery, and which will refine 100 barrels of syrup a day, in addition to its regular business (which we understand to be refining sugar.) A syrup refinery alone, they add, may be started for \$12,000. The following is substantially the process:

A small quantity of lime-water is introduced at the commencement of the boiling. Next the syrup is strained through canvas sacks. Afterwards it passes into immense bone filters, containing "bone charcoal." By these three processes a great amount of extraneous vegetable matter is extracted. It is then subjected to a rapid boiling at 160° heat, in what is called a "vacuum pan," which finishes the process.

The committee think this improves the wholesomeness of the syrup—that it ranks with the best "golden syrup" in quality—that it has none of the boneset taste of the unrefined, nor the smoky flavor often observed in other refined syrups—that it is diminished one-tenth in bulk by the operation—the actual cost is not over six cents per gallon in large quantities—that the company agree to refine for ten cents per gallon, or to return 75 barrels for every 100 barrels of the crude syrup. They sell in small packages of ten gallons or more, for 55 cents per gallon.

[For the Country Gentleman and Cultivator]

### FARM ACCOUNTS, DIARY, &c.

The merchant or manufacturer that should attempt to do business without keeping accounts of his income and his expenses, of his purchases and sales, would be looked upon as little better than an idiot or a madman.

Yet we believe that such accounts are to the farmer, just as important and useful, in proportion to the value at stake, as to the merchant or any other class of men. The farmer that keeps no such account, virtually gropes in the dark, as to where his income has taken itself, at the end of the year; he buys and sells, hires money and lets it, and all these various details he has to keep constantly on his own mind, while the one that keeps a careful account can readily refer to his book, and at a glance see how he stands with the world, and if he discovers a leak in his "treasury," he knows exactly where it is, and how to apply a remedy.

To those who have never kept a diary of the various operations of the farm, we can say from experience, that they will be amply repaid for all the cost and trouble they are to in keeping one. Such a diary for several years, would present such an array of useful and interesting facts, that it would be continued indefinitely.

It would tell the farmer when he commenced and ended the various operations of the farm; would note the appearance of the most prominent birds and insects; the season, whether backward as compared with previous ones, and a great many such facts, which, from their *personal associations*, would be as interesting as useful.

In those families where the "old folks have got off the notion of writing," there are young people, and let one of them be supplied with a suitable book, to be had at any book-store for a few shillings, and keep such a diary. Blending as it does, the useful with the agreeable, it will convey much useful knowledge to the youthful mind, teaching in short lessons to be repeated every day of the year, book keeping, composition, and I think I may say political economy; and as a book of reference, and in many cases as a guide, it will be of great benefit to the farmer.

ST. LAWRENCE.

St. Lawrence Co., N. Y.



[For the Country Gentleman and Cultivator.]

**THE VALLEY OF THE CONNECTICUT,**

FROM OLD HADLEY TO SPRINGFIELD.

The eye accustomed to the fertile and unbroken fields of Western New-York, or the wide rolling prairies of the West, is apt to look with pity upon the rocks and hills of New-England. But the sturdy son of Plymouth does not appreciate your sympathy, and reminding you of the proverb, "the nearer the bone the sweeter the meat," points with pride to his comfortable house and barns, his well appointed table, and happy household. But, if not satisfied with these evidences of prosperity, you suggest that his farm has an undue proportion of *back-bone*, he refers you and your fastidiousness to the Valley of the Connecticut, informing you that although a few loads of mother earth were once removed from his native hills, still that they were dumped in the Valley of the Connecticut, and that you will find the remainder of his land there.

Acting upon this suggestion, I determined to spend a few days searching for these lost pieces of New-England farms. My range of observation, although quite limited, still furnished an abundance of pleasure and instruction.

The Connecticut Valley has been so often and so adequately pictured, that anything by way of general description is unnecessary. From Old Hadley to Springfield, however, the wonderful combination of wild scenery and fertile plains, strikes the eye most forcibly. Old Tom and Holyoke, in their rugged grandeur, rise in bold contrast to the humble cots and blooming gardens that nestle at their base.

The soil of this section is a singular combination of sand and clay, quite different from the dark loam so often the predominant characteristic of bottom land. It forms a warm, rich soil, relieved from the heaviness of clay and the lightness of sand.

**The Farm of T. G. Huntington.**

About three miles north of Northampton, on the east bank of the river, you strike the farm of THEODORE G. HUNTINGTON, President of the Hampshire, Franklin and Hampden Ag. Society. Mr. H. has 40 acres, which, although generally considered a small farm, he says is all that he can manage thoroughly. He has but recently purchased the place. His house and barn are new, and his land under but partial subjection. But all his improvements exhibit intelligence and the spirit of the enlightened American agriculturist.

Mr. H. raises the Hungarian grass, which he this year sowed July 1st, at the rate of 16 quarts of seed per acre. He thinks that it will always be found a profitable grass, and particularly so in seasons of drouth, as it can be sown as late as June or July, when other grasses seem likely to fail.

His cattle are mostly grade Short-Horns; while his hogs are a mixture of Chester County, Suffolk, and Mackay; the Chester County giving length and side pork to the Suffolk, while the latter hides the coarse timber of the former. He has a litter of these pigs, three months old, which are very handsome.

Turning South you soon reach Old Hadley, with its celebrated meadows, its two spires, and its wide but totally deserted street. This latter peculiarity must be accounted for upon the ground, that the male portion of the inhabitants go out of their back doors in the morning with their dinners, not returning till evening; while housewives and domestics finding sufficient to occupy their minds and hands at home, have little inclination and less time for visiting their neighbors, and engaging in the pleasing recreation uncharitably called gossiping!

Leaving Old Hadley Street in its loneliness, you skirt along the Northampton meadows, the carriage road occasionally leading directly into the meadows, and then hugging the foot of Mt. Holyoke. The entire absence of fences through these extensive plains strikes the stranger as quite peculiar, but where provision is made against

roving cattle, the custom is evidently a wise one—saving land, while it also adds beauty to the landscape. Entering the town of South Hadley from the north, the valley becomes very narrow, Holyoke and Tom thrusting themselves well out towards the river.

**The Farm of Milo T. Smith.**

Crossing the river three miles south of this point, you come to the farm of Mr. MILO T. SMITH, which contains about 250 acres, a large portion of it, however, consisting of upland, used only for grazing. Mr. S.'s most profitable crops are tobacco, potatoes, and *manure*. Tobacco throughout this section is unusually fine the present year, and at the date of my visit (Dec. 20th) was bringing from 13 to 17 cents. Mr. S. estimates the yield of his crop at very nearly one ton per acre.

His management with potatoes is as follows:

He prefers corn ground, manured the year previous. Strong manures, he thinks, produce diseased potatoes. After plowing and harrowing unmanured ground he proceeds to mark out the rows—four at a time—with one of Share's planters. In these rows he drops single pieces of cut potatoes 18 inches apart. The potatoes are covered about two inches deep with the same machine. He prefers large potatoes for seed, the yield being 25 per cent. greater than from small one. Small potatoes, he says, have the same *number* of eyes as large ones, but the sprouts lack vigor. Amount of seed per acre, 6 bushels—yield, 200 bushels. Davis' Seedlings are his favorites, the sandy loam in which he raises them relieving them apparently of the moisture which they have when cultivated upon some other soils. He has now in store 1,500 bushels.

He gives great care to increasing from year to year the size and richness of his compost heap. His stables are so arranged that all excrements, whether solid or liquid, pass immediately to the cellar below, where he keeps some half a dozen store hogs constantly employed in working it up. As an absorbent he uses sand instead of muck.

The slops from the kitchen are conveyed through an aqueduct which empties into a reservoir by the hog-pen, thus obviating much unnecessary labor.

In this cellar I noticed a Root Cutter, manufactured by Whittemore, Belcher & Co., of Chicopee Falls, Mass., in which the cylinder, having curved and sharpened teeth inserted at regular intervals, smashes directly in the hopper, instead of at the side, as in the Emery machine. Thus every root, of whatever size, thrown into the hopper, is bound to be cut to pieces, while with the Emery Cutter a large ruta бага cannot reach the knives, unless previously halved or quartered by a spade.

Mr. S. has also a thrifty young herd of Short-Horns, besides owning in connection with Paoli Lathrop, Esq., the celebrated bull Marmion.

**The Farm of Paoli Lathrop.**

I next visited the farm of the latter gentleman, PAOLI LATHROP, Esq., situated in the town of South Hadley, one mile from the village of South Hadley Falls. It consists of 105 acres, all cleared, which he purchased and settled upon 31 years ago, and which, under his management, has quadrupled in value. Upon approaching the house which stands some distance from the highway, you notice a flock of some 60 Dorkings, whose plumage vies with the snow in whiteness. His small flock of pure South-Downs are also conspicuous upon entering the grounds.

Mr. L.'s herd of Short-Horns is justly celebrated, he having, during the past 20 years, devoted such careful attention to the propagation of this breed, as to win for himself the enviable title of Prince of New-England Short-Horn breeders. Mr. L. does not join in the general complaint of hard times affecting the sale of blooded stock; on the contrary, he remarked "that he had never seen the year, that he could not sell at his own price, all the thorough-breeds he had to dispose of."

In breeding he has had a special care to preserving and increasing the milking qualities of his herd. And for early maturity, docility, readiness to fatten, he considers them unequalled. In their rearing and management uni-

form kindness is shown them; no blows or harsh words are tolerated. If, as occasionally will happen, he has a creature naturally so depraved as not to appreciate kind treatment, and which refuses to be milked, he does not press the matter, but converts her into a nurse cow. One of these kind he showed me, which had raised he said, six calves during the last three years. He has a heifer five years old, which last September weighed 1,650 pounds, and only till recently has he put her upon high feed. Her present weight must be at least 1,800 pounds, and Mr. L. is determined to show the public what a Short-Horn can be made. His present herd consists of nineteen cows and heifers, and the bull Marmion. His yearling bull Garibaldi he has just sold and forwarded to ROBERT ELWELL, Esq., Drewsville, New-Hampshire. Mr. L. expects soon to make extensive alterations and improvements for the accommodation of his stock.

But although so devoted to this department of agriculture, still he is not disposed to slight other matters connected with successful farming. A large portion of his farm is thoroughly tile drained, and other parts are brought under the same process as they are found to need it. His supply of fruit is abundant, while his young orchards are coming on rapidly.

Tobacco he considers his most profitable crop, and his tobacco barn, built expressly for drying the weed, is admirably adapted to this purpose.

Of the different varieties of potatoes, he prefers the Peach Blow and Jackson White.

His yield of roots this year was large, and of his carrots he kept an accurate account. From 36 rods he obtained 230 bushels, which is equal to 1,022 bushels, or (estimating a bushel of carrots to weigh 50 lbs.) 25½ tons per acre. The rows were 20 inches apart, with about three inches between individual roots.

Mr. L. is feeding to his young cattle broom-corn seed, ground with Indian corn. The seed weighs from 28 to 30 pounds per bushel, for which he pays 25 cents. He considers it excellent feed for grazing stock.

He stores from 60 to 75 tons of hay, using the "Kirby Mower and Harvester." For reaping he thinks this machine unsurpassed, although for mowing the Buckeye is the favorite throughout this section.

The snow storm of Dec. 23-4, prevented a visit to the large herd of Aryshires owned by Wm. Birnie, Esq., of Springfield, as well as to the Massasoit farm near the same city.

To Mr. Lathrop I am indebted for much valuable information and many hospitable attentions. H. W. C.

[For the Country Gentleman and Cultivator.]

### THE PROMISE OF THE NORTHWEST.

CHICAGO, Jan. 7, 1862.

A man who has never travelled in the west knows so little about it that it is scarcely worth while to talk to him about it. He would scarcely believe a sucker if he were to tell him that Illinois has furnished a larger proportion of fighting men than any other State; and besides that he would be astonished to learn that she is preparing, with her sister States of the Northwest, to supply our country, and the rest of mankind, with sugars, syrups and cotton. Our past history has been marked by no fixed policy for making us self-sustaining in time of war. And now as war is upon us, and we are put to the necessity of devising ways and means—fortunately neither the will nor ability are wanting for this—the sudden destruction of our international commerce would have fallen much heavier upon us in one of its branches than it has or will, but for the timely introduction into the Northwest of the Sorghum, Imphee, &c. Sweets are more than luxuries. They have become a part of our food. Sugars and syrups are regarded nearly as necessary to family subsistence as flour and beef. Even in the cabins of the extreme poor

you hear the want of these articles spoken of as grievances not to be endured.

The success which has attended the cultivation of Sorghum in the west is truly wonderful. The plant was introduced into France, and cultivated very extensively, twelve years ago. But either the soil and climate were ungenial, or the proper means were not employed in preparing the syrup, for it has now gone into disuse for that purpose, and is grown mostly for the manufacture of alcohol and vinegar. The first attempts at introducing it among our farmers met with distrust. They remembered the *Morus multicaulis* and other impositions of the east, and but few would give the seeds a place among their garden plants. At a fair of one of the interior counties of Iowa, four years ago, the writer saw the first sample of Sorghum syrup manufactured in that part of the State. Although spoken of with distrust until examined, very few, if any, who tasted, expressed any doubts of its success. The grey haired old man who brought it to the fair had watched its boiling with the greatest care all the night previous. He had not been incited by any award, for none was offered; but he saw in it a large and profitable branch of industry which should ultimately make the people of Iowa independent of the South in that particular. Now the county produces all the syrup used in it, and has a surplus for export.

By information from Mr. Wallace, Corresponding Secretary of Iowa State Agricultural Society, it appears that Iowa has produced the past year, seventy-six and a half per cent. of all the syrup her inhabitants will require for the year to come. The Southern part of the State has the soil, climate, and every requisite for the successful culture of Sorghum. In the north the seasons are too short, and fuel too expensive; still much is grown, and will probably continue to be for home consumption. Minnesota and Wisconsin are rather too far north; yet these States have their warm, sunny places in which sugar cane will mature. We have no exact data for the product of Illinois the past year. Many counties have grown all the syrup that will be used in them, and not a few have a portion to export. It may not be safe to set the figures so high as Mr. Wallace has for Iowa, but we may safely say our State has the past year grown one-half the syrup required for the people of the State. The neighboring States of Michigan, Indiana, and Ohio, have not been unmindful of the importance of this new branch of husbandry.

Four years ago, all the sugar-cane planted in the Northwest was put out as an experiment. The juice was extracted, and boiled down as an experiment. No experiments were ever crowned with better success in such untutored hands. Nine-tenths of the Sorghum grown the following year, was commenced and carried through as experiments to satisfy the curiosity or convince the cautiousness of the experimentors. More have been astonished at their success; and the ease with which all the processes are performed, than have failed of very satisfactory results.

The fact is, there is no limit to the amount of sugar cane the Northwest can produce. We have about corn enough to last the country two years, if not an ear is grown in 1862. Farmers will plant more sparingly than for several years. Their attention will be devoted to other articles which promise better returns. Cotton will claim much attention; and it would not be strange if with our accustomed energy and tact at adaptation, we should in that branch exceed our best hopes. But the cultivation of Sorghum next year will absorb many fields heretofore devoted to corn. For instance, one farmer near Lodi, will put in 500 acres, and pledges 500 more by his immediate neighbors. The soil is good, and this one thousand acres may safely be set down as good for a quarter of a million gallons of syrup.

But we are not yet passed the period of experimenting. We do not know how to clarify the syrup at home. The best clarified we have seen has a taste of the extraneous vegetable matter which comes from the cane with the juice.



## PUMPKINS AND APPLES FOR CATTLE.

ENS. CO. GENT.—There has much been said in regard to the value of pumpkins as food for stock. Some write in their favor, while others do not see any value in them; some saying the seeds must be taken out or they are an injury to cattle; others do not discover any harm in feeding them with the seeds. I have been amused to hear farmers who have devoted years to their calling, say that pumpkins dry up their cows; also that apples do the same if given to them; and that they are not worth gathering for that purpose.

For the purpose of ascertaining the value of pumpkins for feeding purposes, I had one yoke of oxen (7 years old) weighed about the 1st of October; also a pair of stags 3 years old, (that had just been castrated,) and a yearling steer, fed with them, as they were taken from the field, (that is ripe or green as they might be,) but as the fall was fine they were mostly ripe ones, and were nearly all gathered and housed before any frost, which I think should always be done to get the value of them. The oxen were unruly, and were fed about 2 bushels each per day, and then run loose in a large stable, and eat from a mow of wheat chaff, that was partitioned off from one side of the stable and filled when I threshed my wheat, and so fixed that they would get what they would eat without wasting. The stags were also kept in the stable, but fed hay and cornstalks, with  $1\frac{1}{2}$  bushels per day, and the steer had half a bushel per day and run in the pasture, except he was brought to the stable for his feed.

The result: The oxen gained 300 lbs., one stag 100 lbs., the other 120 lbs., and the steer about 100 lbs., which I think was as cheaply done as could be with meal or any other feed. The stags I have no doubt would have done much better, but they were not well when the experiment commenced, as they were put in the stable and commenced their feeding immediately after castration; they were fed without any regard to seeds, some being taken out of the best ones for seed, the rest fed as they were. Having plenty of pumpkins, some were given to two farrow cows, and they nearly doubled their milk in the months of November and December, till they were all fed out.

This year apples were too scarce to feed, but I think from some experiments that I have made, that they are at least equal to carrots in weight for feeding to neat stock, and especially to milch cows, they always gaining both in milk and flesh with me when fed on them. Apples and pumpkins should not be suffered to freeze as that injures their feeding properties very much.

Rome, Jan. 1862.

JONA. TALCOTT.

## CORN AFTER BUCKWHEAT.

I planted a piece of corn last spring on land, part of which had buckwheat the year before; the remainder sward land that had been mowed but one year; and all treated alike as nearly as possible. A fair coat of manure plowed under, then a slight dressing spread on top and harrowed in. The corn was all planted at the same time, the rows running both ways, but *planted across* both parts. The result was, where the buckwheat was raised, the corn was much smaller than on the sward land, not only in the growth of stalk, but in the size and number of ears. In fact there were a great many hills on the buckwheat ground that never set an ear, while *all* on the sward part was well eared and well filled. Now what caused this very great difference? The ground was all alike, a sandy loam, and was all seeded with clover and timothy with oats, two years before, and that part that had the buckwheat was not mowed at all, but grass turned under before sowing the buckwheat. This was the second time that I have planted corn after buckwheat, and the result the same both times. I would like to understand the true reason. Brother farmers please give us your experience in this matter.

E. L. HOLDEN.

[For the Country Gentleman and Cultivator.]  
Value of Cornstalks as Feed for Cattle.

MESSRS. L. TUCKER & SON—I find in the COUNTRY GENTLEMAN of the 9th Jan. inst., an article on the use of cornstalks for fodder for cattle, written by my neighbor JOHN JOHNSTON, in which he suggests that the cutting of the stalks does not pay. Now to my mind it follows conclusively, that if it does not pay to cut them they are worth but little for food, for I think Mr. Johnston and every other farmer who has fed stalks, will agree with me that fed whole only a small portion of them are consumed; and whether the great mass can be worked easily into manure, is not so much a question with me, as whether there is not really value in that part of the stalk which the animal will not eat whole, but which he very readily consumes when cut.

Mr. Johnston says he cut corn fodder one winter for forty head of cattle and thought his labor lost. Now I would like to take every thing upon *trust* from such veteran farmers as John Johnston, but I commenced last year cutting the stalks from eight acres for twenty-seven head of cattle about the middle of November, which carried them until about the 1st of February, with two quarts of corn-meal and one quart of oat-meal mixed per day. Calling the corn 50 cents per bushel, and the oats 25 cents per bushel, which were about the prices here, the value of the meal was about four cents a day for each animal, and though Mr. Johnston did not quite approve of my entire manner of feeding, he gave me credit for doing it quite successfully; and as an evidence that my cattle were not starved, I would state that they were two and three year old steers, bought the summer before not in a high condition at all, and a majority of them sold from pasture in the early part of November last at home, for four cents per pound, live weight, to a drover who made money on them in the Albany market. I would in justice, however, add that during the latter part of the winter the feed was somewhat increased.

I commenced again last November feeding thirty-four head, such as I purchased about the country here for less than two cents a pound, (mostly of the *scallywag* order,) upon the stalks from fifteen acres,—which I expect will carry them into February,—and two quarts of corn-meal mixed with two quarts of wheat bran. Calling the corn 50 cents a bushel, and the bran 9 cents, it amounts to about three and a half cents a day per head; and upon this feed my cattle are growing every day—which fact I can make patent to Mr. Johnston, or any other person who feels interest enough in this matter to take an occasional look into my stables.

It think it is estimated that a three-year old steer will consume about one and a half tons of hay in a winter; assuming that estimate to be correct, and calling the hay eight dollars a ton, which is certainly low, it will cost twelve dollars a head to winter stock on hay.

The meal and bran we are feeding will cost about \$6.80 per head for the winter, less 50 cents a head for cutting, leaving a balance to the stalk account of \$5.20 per animal.

Assuming (which I think is correct,) that an acre of cornstalks, *cut*, will on an average, fed with the meal as above, carry an animal and a half through the winter, it leaves every acre of stalks worth to the farmer \$7.80, which is more than I should be willing to pay for them to feed whole.

Mr. Johnston again, says he dislikes to hire cattle to eat. I have seen that argument advanced before, but it never had much weight with me, because I am confident we have all, including Mr. Johnston, been hiring ourselves, and to a certain extent our animals, to eat food that had absolute nourishment in it, which without preparation we would hardly have ventured upon. It strikes me, it won't do to say to live men of this generation, that you cannot hire cattle to eat food and thrive upon it, upon which without that preparation they would not thrive. E. SHERRILL. Geneva, Jan. 10, 1862.

[For the Country Gentleman and Cultivator.]

**CORN AND TURNIPS TOGETHER.**

Messrs. Eds.—For one, I like to read in your columns, what has actually been done in the way of crops, much better than the wisest instructions as to what should be done. Therefore I was interested in L. Woodward's account of his corn and turnips together, in the Co. GENT. of Dec. 26.

I am partial to any plan of getting double crops from the same land, but I desire to get the extra crop without extra labor if I can. This item of labor is my most formidable enemy in farming. Long pay-rolls make a frightful hole in the products of 80 acres.

Mr. Woodward, to get his turnip crop with his corn, made an extra planting or seeding—nearly twice as much work as in planting the corn, for he “followed after, and put turnip seed each side of the corn, about six inches from the hill.” Here were two hills dropped and covered besides the corn. Then when the plants were up, he dropped plaster and ashes on three hills instead of one. Then he cultivated twice in a row each way, “being careful not to cultivate up the turnip plants.” Then he hoed, and of course was again careful, and hoed the three hills instead of one. These he cultivated twice each way again. Then “he makes a flat hill.” Then he thins out the turnips plants, and transplants in vacancies.

Now suppose the labor done, although I should think both the corn and turnips would need cultivating after the transplanting stage of growth, it does not, to me, seem practicable to perform these four cultivatings with proper justice to the corn, without destroying many of the plants standing six inches from the corn. Supposing the use of land worth \$7 per acre, would it not be more profitable to put this amount of labor and care on a separate crop, on other ground, leaving the corn to itself? Is not the main object of double crops, (economy,) in a measure defeated by this amount of extra labor?

Mr. Woodward certainly succeeds in getting fine crops, and perhaps finds in his case more profit than I have in a similar attempt, which I will describe; yet I prefer my system, for my extra labor is mere nothing, and my crop, big or little, is a certain gain.

My experiment was on about one acre of a three acre field of fodder corn, planted and cultivated by one machine, called the “Gage,” in drills 2½ feet apart. The Gage was astride the rows in a uniform line parallel therewith. On cultivating for the last time with this machine, I got upon it myself, (as it runs on wheels without guidance,) and sitting exactly over the corn row, holding a small tin-pail of purple top turnip seed between my knees, I strewed the seed from each hand in straight lines about six inches from the corn on each side. I dropped it just astride of the line of the following knife of the machine so as to partially cover it. The machine would have dropped it more evenly, but not expecting much return I did not, for two hours work, think it worth while to put on the dropper. It came up well, and the corn was soon too big to go through, so nothing more was done to it. This two hours ride was all the extra labor.

Now for the result. The corn was very thick and heavy as a general thing, (see Co. GENT. p. 145,) a part was cut up as was intended, and fed green. Here the turnips were very large and good. The balance of the corn was left to ripen. There the turnips were smaller, but were very well worth harvesting, while the smallest left upon the ground made a good bite for the cows.

On other parts of the same field I sowed carrots and rutabagas in the same manner, and wherever the corn was cut up green, and where it was lightly seeded or destroyed in a measure by worms or birds, the roots were good half size—some carrots that would weigh a pound—what our friend “Hurricane” calls, to quote from memory, “good fair sized roots.”

I thought that this crop paid very well, as it had cost

nothing, and I am determined to practice the system more extensively, and with slight variations another year.

As to the value of the crops thus raised with little labor, I can make no definite estimate, except in amount of feed in connection with other substances.

I had about 17 acres of other corn; on the edges of this and the head lands, I scattered flat turnip seed after cultivating. These turnips, together with those of the one acre first mentioned, and the tops of near five acres of beets, carrots and rutabagas, have kept my stock of 36 cows in full milk and thriving condition up to 23d of Dec., with a daily feed of one-third bushel of brewer's grains each. Up to this date they would refuse corn stalks—cut or uncut. I commenced feeding beet tops on the 25th of October, the pasture being quite short, having had more than one cow to an acre upon it for 2 years. The tops of the field roots, lasted the 36 cows 4 weeks; and the flat turnips alone, raised as before stated, thereafter till the 23d of Dec., when the rutabagas were reached and mixed with soft turnips. There are yet perhaps 50 bushels of the latter, and yet 4 calves and 6 horses have shared in degree, this delicacy of feed. For it may as well come out here that I am too poor to raise or feed hay or oats in these times, not having had a spear of hay in my barn since last spring, and only a few oats which I am preserving as a curiosity to show my colt when he is grown up.

TAPE LINE.

Elmira, N. Y., Dec. 26.

[For the Country Gentleman and Cultivator.]

**FARMERS' IMPLEMENTS.**

Now is the time for farmers to put all their agricultural implements in order, so that no time shall be lost nor expense incurred in the spring, when time is more emphatically money than at this season of the year. If you have a good set of tools, such as saws, planes, squares, chisels, &c., you can repair many broken tools about as well as a professional mechanic.

But this is also a season to invent and make new agricultural implements. I say *invent*, because the time has not yet come when the farmer or the gardener cannot “get up” something to aid him in the cultivation of the soil, that is not to be found on sale at the stores. The most of our new and valuable implements originated in this way, or at least were invented by men who are *practical* farmers, or have been at some time of their lives.

Who is so well able to *invent* farmers' tools or implements as the farmers themselves? They have brains, and the practical ability to judge of the merits of what they construct. They may not be able to *make* an article that embraces nice work of wood, iron and steel; but they can lay their plans before the proper mechanics, and thus produce what their brains have developed in theory.

Instead of one spending his winter days in doing nothing but his “chores,” and talking politics in the village stores or bar-rooms, he should be planning for the spring's work, and when it comes not find him unprepared for it. It is not the sleepy, unthinking, un-inventive farmer, who makes the most money by his vocation; but he who has the best and most perfect implements, and knows how to take care of them, when in or out of use.

Clinton, N. Y.

T. B. MINER.

[For the Country Gentleman and Cultivator.]

**Black English Willow for Protection.**

Mr. WESSON HOLTON, of Willow Creek, in this county, has a hedge on the west and north sides of his orchard, which protects it well from the winds of that direction. The cuttings of this hedge have now grown three summers, and average about fifteen feet in height. They bear abundant foliage, and are ornamental, useful and profitable.

Amboy, Lee co., Ill.

W. H. GARDNER.



## The Bee-Keepers Department.

### The Construction and Size of Bee-Hives.

The following is an extract from the very excellent chapter on the Apiary, contributed by Mr. QUINBY for No. Four of the Illustrated Annual Register for the year 1858 :

THE SIZE OF THE HIVE for all sections north of 40 deg., should be 2,000 cubic inches—south of that about 1,800. The winters are longer in a high latitude and require more stores for winter,—a large hive will secure it,—but in any section there must be room for brood combs, and not much less than 1,800 will do.

The cheapest material for hives is sound inch boards, unplanned, except at the corners, to make close joints. A suitable shape is 12 inches square inside, and 14 inches high—sticks are needed across the center inside each way, to help support the combs, and a hole for the bees to pass in the front side, one-third the way up. The top should be 15 inches square, and project half an inch over each side of the hive. Plane only the upper side; rabbet out the corner an inch wide and half an inch deep, upon which a

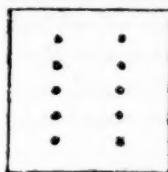


FIG. 1—HIVE TOP, center. They should be uniformly distant to match others in the bottom of glass boxes that are to fit over them. This is now ready to be nailed on the hive—stop the holes and set it away for use.

Two glass boxes, 12½ inches long, by 6½ wide, (fig. 2,) are to go on the hive at once, or four, 6½ square, may be used. For the wood part of these, (top and bottom,) thin

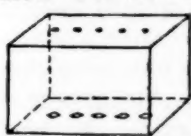


FIG. 2—GLASS BOX, bottom up, showing the holes in the bottom and combs in the top. boards are planed to one-fourth of an inch thickness, and cut to the proper length and width; through the bottom make holes to correspond with those in the top of the hive. The posts for the corners are five-eighths of an inch square, and 5 inches long. In two adjacent sides of each make a narrow groove with a saw or other tool, one-fourth of an inch deep, for the glass to fit in. Set up the box by nailing through each corner into the posts. Smaller posts may be used and the glass held by pieces of tin, if preferred. Pieces of new white comb an inch square, are fastened to the top two inches apart—it is done by dipping one edge in melted beeswax, and applied before cooling. Glass are cut the right size from panes 10 by 12, with little waste, and slipped into the channels, and the other part nailed on; it is ready for use when the condition of the stock or swarm requires it.

The stand is made of inch boards 15 inches wide, by two feet long, the ends nailed on pieces of wood or joists from two to four inches square, and put directly on the ground, with the hive on the back end. The advantages will balance any little trouble of keeping down



FIG. 3—HIVE ROOF AND STAND.

grass, weeds, &c. The roof is made by nailing together two boards like a house roof, 18 by 24 inches, and laid on loosely. This can be drawn over to protect the hive (fig. 3) from the sun in hot weather, and put back to allow the direct rays of the sun to strike it in spring or other time when only moderate.

In painting hives, &c., light colors are preferable.

The apiary should be protected from winds by a high board fence or buildings. When not limited for room, stands should be placed four feet apart.

Whenever the bees of old stocks are crowded outside the hive, when that is raised half an inch for ventilation,

it is time the boxes were added, if in a season of honey. New swarms should receive the boxes a little before the hive is full, unless the honey season is too nearly over. Full boxes should be exchanged for empty ones as fast as filled.

[For the Country Gentleman and Cultivator.]

### TEST OF PURITY OF ITALIAN BEES.

Is there any test of purity of the Italian bee that can be relied on—and if so, what is it? Is it color, size, number of yellow stripes, or any or all of these combined, that is to be taken as positive proof that the genuine article is on hand? These are questions that, I have no doubt, will interest many bee-keepers who are readers of the COUNTRY GENTLEMAN, and I propose giving the solution that I have arrived at in the course of the last two seasons, during which I have been breeding the Italian bee.

And first, what is not a test? Can a person by simply inspecting a colony of so-called Italians pronounce them pure? I answer most decidedly that he cannot. They may have certain marks or appearances about them which may lead to their being pronounced *impure* without any hesitation; but with every appearance of purity they cannot, from mere inspection, be positively said to be pure. I had a colony of bees last spring, the workers of which were as beautiful as any I ever saw. They had three yellow bands, and between every two sections of the abdomen they showed a distinct white ring, presenting a very beautiful appearance, but when I applied the test which I shall presently indicate, I found that, as regarded purity, they were worthless, and I long since gave the colony another queen. The only fault that I could at present find with these bees would be that they were a very little too large. And here the question arises as to size. How is it that previous to the importation of the Italian bee into this country it was universally described as being of a smaller size than our native bee, and yet at this day you can find many breeders of pure Italian bees who say that it is decidedly larger? My own opinion, and I give it only as an opinion, is that the description referred to was correct—that the Italian bee is somewhat smaller than the average of our native bees, and that in its smallness of size and general delicacy of appearance it shows evident signs of that long continued breeding "in-and-in" which has been a necessity in order to keep the breed pure. I have, however, discovered that a very slight cross of black blood will wonderfully increase the size of the Italian bee, and that after you have bred out almost every other sign of impurity, this increase of size will be about the last to be got rid of. And now for the test, and I by no means lay claim to its originating with me, but only that I have thoroughly proved it, and believe in its correctness.

The true test of the purity of any colony of Italian bees, is in the color of the queens you can raise from it. The great majority of the queens, say nine out of ten, or ninety per cent., or even more, must be of pure golden yellow, or yellow with a slight tinge of red in it, such as you might call red gold, in distinction from yellow gold. There should not even be many of this latter color, as it would be a suspicious symptom, and on testing them, unless they breed back to bright yellow queens, the queen that produced them should be discarded.

If breeders will only bear this in mind and insist on their Italian colonies producing bright yellow queens and plenty of them, the question of the size, color and marks of the pure Italian workers, will soon settle itself, because the color of the queens being an infallible test of purity, carries everything else with it; but so long as apiarans are satisfied with breeding queens of all colors from bright yellow down to a deep chestnut brown, so long will there be a never ending dispute as to what are the marks of a pure Italian worker.

The numerous experiments that I have made during the last two seasons have satisfied me that an Italian queen with only a very slight infusion of black blood in her veins, cannot produce many pure yellow queens, and therefore I take it for granted that a queen whose royal progeny are almost all dark colored cannot pure. This I think is a logical deduction from the facts. C. W. T. Hulmeville, Pa.

## Rural Architecture.

### DESIGN FOR A FARM HOUSE.

We present this design with some confidence that it will be found to meet the wants of a large class of farmers and other dwellers in the country. It is neither large nor costly. It has neither a pretentious nor a foreign aspect. It seems as though it might have grown out of the soil itself, so modestly does it harmonize with the best features of any cultivated landscape. Yet it is roomy enough for quite a large family, and every room is arranged for home, family enjoyment, rather than for show or for company. Any family which will adapt itself to the suggestions of refinement and intelligence indicated by the green-house, the bay-window and its crowning balcony, the latticed porch and the simple terrace, need never want more exciting pleasures than those always at command beneath and around the old roof tree.

The accommodation provided is an entrance hall, a parlor of fair proportions, with a bay window, a glass door

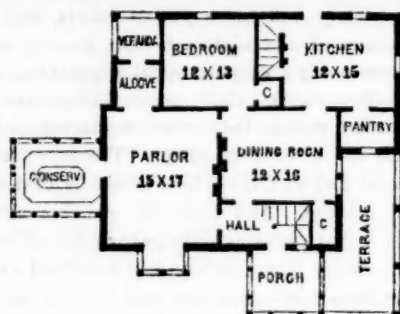
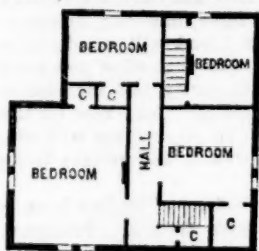


FIG. 1.—PRINCIPAL FLOOR.

through which the plants in the green-house may be seen, and an alcove, which is a small recess cut off the veranda, and only separated from the parlor by an arch, and, if preferred, a fall of drapery. On its left wall a case of books, or articles of curiosity or *virtu*, may be placed;



through its further wall a glass door leads upon a small private veranda, enclosed by a light balustrade; and at the right a private door gives a "favored few" access to the bed-room. The dining-room, with its closet, the kitchen, the back stairs and the pantry conclude the accommodation given on the first floor, (fig. 1.) Everything in the way of a scullery, dairy, wood-room, &c., can of course be added according to the necessities of each particular case. Four good chambers (fig. 2) are supplied in the attic, each with a closet.

For details of the construction of the conservatory or green-house, see previous numbers of the Register, or special treatises on that subject. The cost of this house will be from \$1,200 to \$1,400.—*Tucker & Son's Annual Register for 1860.*

### RURAL ECONOMY—VARIOUS HINTS.

**LEAKY ROOFS.**—Where a house has been built by one or more additions the occupants are almost sure to be troubled with leaks. The easiest way to stop them is to introduce suitable cement. White lead paint, with fine sand intermixed to stiffen it according to need, answers a good purpose. Gas tar, or any kind of tar, similar stiffened, will make an excellent water-proof, frost proof application. A third, and a very good cement, is made of four pounds



PERSPECTIVE VIEW.

of rosin, a pint of linseed oil, and an ounce of red lead, to be applied hot, with a brush. Any person who knows the difference between cold, wet discomfort, and warm and dry enjoyment, should try one of these remedies for a leaky house.

**PAINTING.**—Every farmer has several hundred dollars invested in wagons, carts, machines and implements. Now how much longer would these all last if every crack, joint and pore were always kept well filled with good oil paint? Probably on an average at least one-third longer than if not painted, and more probably at least twice as long. A great deal may be done by keeping them properly housed; but they must necessarily be more or less exposed in use: the heat opens the cracks in summer, a shower often overtakes them and soaks into these cracks. The process is again and again repeated, and decay begins. An overstrain splits them wider, or breaks certain parts. They must be patched or repaired, or new ones purchased. The farmer who has five hundred dollars thus invested might save from fifty to a hundred dollars a year by keeping a pot of paint always on hand, and on an occasional rainy or spare day go over his machines and implements, and fill with paint such as need it. The pot should have a tight cover, so as to prevent the paint drying, which may be best accomplished by using an earthen jar, with a large cork to fit it.

Every farmer should keep a vessel of white lead paint—the pure article. This is the best for filling in cracks or joints in small tools—it is good for abrasions on the backs of animals, from harness or yokes—it is good for the scratches in horses that have to travel muddy roads—and it is good to coat the mould-board of a plow, to prevent rust after plowing is completed.

**WEDGES REBOUNDED.**—Many of our readers cut and split large wood in winter. When the logs are icy, some of them are annoyed by the wedge rebounding or flying back. Ashes dropped in will usually prevent it, but ashes are not commonly at hand in the woods. Take a piece of dry bark and set in the opening, then set in the wedge anew, so as to split this piece of bark, and it will prevent any further trouble.

**FILLING ICE-HOUSES.**—A former number of the Illustrated Annual Register, gives the following very brief directions for filling ice-houses, which appear to comprise all that is essential:

1. Encase the ice in a foot of sawdust;
2. Provide ventilation above;
3. And drainage without ventilation below.





PATENT MOSS BASKETS.

These have been the cause of considerable excitement among many of our gardeners through the country, many believing firmly that they were the greatest humbug of the day.

A plain statement of facts will be the best proof of what they are designed to accomplish, and the great advantages they possess over the ordinary pot culture.

These baskets are from six inches to two feet in diameter, and of a proportionate height, made of wire in the usual way. In the center of this basket is a pan containing the compound in which the various things are planted. The space between the pan and the basket and top is filled with moss, so that when complete they have the appearance of the ordinary moss basket.

When the plants are grown in soil in the usual way, they soon exhaust it, and require re potting or renewing in some shape, while by this plan the various plants are placed in just such nutriment as they require; instead of being compelled to go through the soil in search of it, they absorb it as required. This compound will last for years without any change, before it can become exhausted. The only care necessary is the watering, as is usual in the case of pot plants, but not so frequently, as the moss will retain the moisture for a long time.

As soon as the Basket of Grapes, (of which a cut is given above,) was shown to the Commissioner of the

Patent Office, and a statement of the principles made a patent was at once granted.

I have a Pine apple growing in one of these baskets, which was shown at a meeting of the Brooklyn Horticultural Society, and pronounced superior to any that had been seen either in England or the West Indies; this is larger and better than any I have which are growing in pits and pots, grown according to the most approved methods. If this, the "King of Fruits," can be grown in this way so luxuriantly, surely all other kinds will succeed equally well.

I have also grown the Black Hamburg grape in the same way, with a larger yield and finer flavor than in a graperly or in pots, one of which I presented to Mrs. Lincoln. I have also a peach tree grown in a nine-inch basket, which produced 10 large beautiful peaches of fine color and size; it is now fully set with buds for next year's crop. Strawberries now growing in a six-inch basket, in flower, partially ripe, and fully of as large size and fine color and taste, as any that can be grown during their regular season. All kinds of plants, fruits and flowers, can be grown in this way, in greater perfection, and with less care and attention than by any other method.

The prices will be made as low as possible, so as to place them within the reach of all. As soon as they are ready for sale, notice will be given through this paper.

Any further information can be obtained by calling on or writing to my agent, C. B. MILLER, No. 29 Broadway, New-York.

ALFRED CHAMBERLAIN.

Newport, R. I., Dec., 1861.

### PRODUCTIVE APPLES.

The Hawthornden apple is perhaps the most productive well known variety, especially when young. The Baldwin may stand next; young trees of the latter, five years from setting out in the orchard, very often bear a bushel or two; and sometimes at seven years, they bear three or four bushels. A young orchard, well managed, may be expected to give a hundred barrels per acre, in favorable seasons, at ten years. The Baldwin has by no means lost its popularity at the east. An extensive tree dealer in the eastern part of Massachusetts, informs us in a letter just received, that notwithstanding his efforts to mix in other varieties in orders, *four-fifths* of all the apple trees called for, are Baldwins. Among the hundreds of new sorts that are coming to light, and claiming attention, when shall we find one equal to this famous variety, or to the Rhode Island Greening.

### DWARF PEARS---SUGGESTIONS

Some of our readers are aware that in some parts of the country, large numbers of dwarf pears perished last summer, in consequence of the death of the quince bottoms—the latter in all instances having evidently died first, and the pear, as a matter of necessity, because there was no supply of nourishment from below. Vigorous trees died as soon as any, and well drained land appeared to be no protection. The common opinion is that the death of the quince roots was caused in some way by the winter. Would not banking up, broad and shallow, or mulching with a few inches of manure, perhaps save the trees? Will those who have been in the practice of thus applying manure to their dwarf trees, please report the results? Let the experiment be fully tried—it is not too late to apply such a mulching of manure—it will certainly do good by enriching the soil, if nothing else. A thin sprinkling will hardly answer—it should be several inches deep.

## THE GRAPES.

The Gardener's Monthly furnishes a great amount of valuable information on this class of fruit—the more interesting from the increased attention given to them—deservedly so to a fruit that bears in two or three years from planting; affords heavy crops; and is not so liable to the vicissitudes of the seasons as most other fruits—while with a little care and selection, the fresh fruit may be had nearly the season through. The Grape Growers' convention, at Lancaster, Penn., reported through its committee on one hundred sorts on their tables, mostly of the new ones which have lately attracted more or less of the public attention. We give briefly their opinions, founded on examinations of the bunches on exhibition:

Cassiday, Arrott and Matilda, are pronounced similar in character.

Rogers' Hybrid, No. 1, large, oval, brown amber, very promising.

Maxatawny—amber colored, of delicious flavor; and pronounced by the committee as the best white native grape. [Too tender and late for the north.]

Taylor—small, greenish white—excellent. [Dr. Evans, in another place highly praises it, and says it is equal to Elsinboro, but that it rambles too much.]

Anna—not fully ripe—should hang late.

Franklin—a promising wine grape. [Some of the members of the committee said it did not bear well.]

Canby's August and York Madeira are similar.

To Kalon—similar but superior to the Catawba—and ten days earlier. [Its earlier ripening gives no doubt the high color, like the dark purple of the Catawba at Cincinnati.]

Vermont Seedling—similar but not equal to the Clinton.

Union Village—"fully equal to the Isabella in quality—larger and earlier."

Williamsport—above medium, good, early, promising, hardy.

Early Amber and Northern Muscadine the same—sweet and foxy.

Raabe—cross between the Elsinboro and Bland; small berry, compact bunch, dark red, first rate quality. [S. Miller said equal to the Delaware but a poor grower.]

Merceron's Seedling—"a decided improvement on the Catawba, 2 weeks earlier, tenderer pulp."

Hyde's Eliza—similar to Isabella, and one week earlier.

The Concord was universally approved by the convention.

The Ontario, S. Miller said, needed protection, "was similar to the Union Village, but coarse and watery. The Union Village was pronounced equal to the Isabella."

The Rebecca highly commended, but some thought it a poor grower. The Diana mildews at some places.

The following vote was taken on the best six table grapes, and the three best for wine:

FOR TABLE:—Concord, .....	21 votes.
Delaware, .....	20
Isabella, .....	16
Diana, .....	15
Rebecca, .....	11
Maxatawny, .....	8
FOR WINE:—Clinton, .....	8
Catawba, .....	7
Delaware, .....	4

The Muscat Hamburg grape, (exotic,) is highly spoken of by the editor—not equal in quality to the old Muscat of Alexandria, but a fine setter, and large and beautiful—fine for cold vinerias. A plant 15 months old furnished a bunch weighing two pounds. It had, of course, the best culture.

Blood's Seedling grape, we are informed, ripens very early, is hardy, and of vigorous stock. It is of the Fox character, but "much sweeter, has thinner skin, and not so hard a pulp"—is good for the colder parts of the country.

Mead's Seedling, is stated to be a seedling from the Catawba, superior in earliness, size and beauty. It is distinguished from the Catawba by its very long pedicels. It is said to have been entirely free from rot, when Catawba, Isabella, Clinton, &c., were badly affected.

The Catawissa grape is stated by Dr. Evans to promise value, ripening with Hartford Prolific and Northern Muscadine—is large, and thought to be equal in quality to Isabella. He also highly commends the North America, a seedling of the Franklin, much better, large as the Isabella, sweet and good, without pulp, but lacks flavor—ripening before the Hartford Prolific.

**PLANTS IN BAY WINDOWS.**—The very neat practice of making small plant cases in bay windows (and which our readers will find handsomely figured on p. 50 of the Illustrated Annual Register for 1861,) is recommended by the editor, who states that a common oil lamp, is quite sufficient, with the usual window shutters, to keep out frost during the night or extra severe weather, while the regular day temperature of the room will suffice for that time. This is worth remembering by those who are deterred from attempting to keep house plants by the fear of their being frozen, or of the labor of maintaining a proper temperature by fire heat.

## Raising Asparagus in Queens County.

When at the State Fair this year, I was very pleasantly joked about Long Island farmers buying manure by the bushel. In order to show that it *pays* to do it, I send the following statement, and for which a premium has to-day been awarded by the Queens County Ag. Society.

JOHN HAROLD,

Statement of Asparagus raised by Peter Cock, Locust Valley, Queens County.

The plot of ground contains by actual survey 7 acres and 7 53-100 rods. The ground was set out at different times, and has been cut on the average about seven years, with the exception of two acres, one of which has been cut two years, and not yet up to a successful yield; the other but one year, which was cut but a few days and consequently very little. The soil is a light sandy loam, located near the salt water; surface nearly flat. The crop is manured with New-York city stable manure, 75 loads (14 bushels) to the acre, spread on the surface in the fall, and worked in the rows in the spring. The asparagus is set in rows 4 feet apart, and 16 inches in the row, 5 inches below the surface, with roots one year from the seed. The crop is cut up and put up in bunches 4½ inches in diameter, 7 inches long, weighing 3½ pounds to the bunch, and was sold in New-York at 20 cents per bunch—40 bunches is considered a fair day's work to cut and bunch. About 1,000 bunches were lost by a severe frost the first week in May.

## RECEIPTS.

Yield from April 27th to June 18th, 10,112 bunches, sold at 20 cents per bunch, ..... \$2,022.40

## EXPENSE OF CULTIVATION.

525 loads of manure, (14 bushels,) at 20c. ....	\$315.00
Unloading and carting do., 4 teams, 7 men, 2 days, ..	24.50
Plowing and harrow'g. team and man 18 days, at \$2.50, ..	45.00
Harrowing, 1 horse and man 4 days, at \$1.50, .....	6.00
Weeding, 12 days, .....	9.00
Carting to the boat, .....	40.00
Wear and tear of boxes, .....	10.00
Cutting and bunching, 253 days at 75c., .....	189.75
Freight, ½c. per bunch, .....	50.56
	695.81

Balance in favor of crop, ..... \$1,326.59

This statement was accompanied with the surveyor's and two other affidavits relating to measuring the ground, gathering and carrying to market. One thousand three hundred and twenty-six dollars and fifty-nine cents profit from a little over seven acres, is not so bad, even if the manure was bought by the bushel. J. H.

## Honey Locust and Yellow Locust.

**MESSRS. L. TUCKER & SON**—The seeds of these trees grow as readily as Indian corn, by adopting this simple process: At night pour boiling water on the seed and leave it till morning; then pick out the swollen seeds, and renew the hot water application to the balance, and continue this process till all are swollen. Plant the seeds about half an inch beneath the surface of the soil.

N. B. Both these species produce abundance of seeds on this island. WM. R. PRINCE.

[For the Country Gentleman and Cultivator.]

## To Prevent Rabbits from Barking Fruit Trees.

Catch one of them, and cut "him" into about four pieces! Then take a piece in each hand, and rub your trees with the fleshy part, up as high as they can reach, and you will not be plagued with them any more. Should the winter prove long and severe, it would be well enough to give the trees an additional rubbing in the latter part of the season. GEO. H. WILLSON. Olney, Ill.

**GRAFTING THE GRAPE.**—A writer in the Germantown Telegraph recommends grafting the Delaware grape on the roots of other grapes, both on account of its greater scarcity, and to cause a strong and rapid growth, and states that he has been as successful as in grafting any thing else, by performing the operation in spring, in March or April, "like any other grafting," taking care to set the graft low down or on the root.



**Fruit-Growers' Society of Western New-York.**

The winter meeting of this vigorous association met at Rochester on the 8th and 9th. The Supreme Court room was densely crowded with interested members and listeners. The tables were handsomely filled with choice collections of winter fruits—Ellwanger & Barry, as usual, contributing the chief portion of the exhibition, and furnishing 58 dishes of as many sorts of winter pears, mostly of very fine growth, and a large portion in fine eating condition, as the members proved satisfactorily on the occasion. The same establishment also furnished an excellent selection of some 50 varieties of winter apples.

The Officers elected for the year, were—

President—H. T. BROOKS of Wyoming.  
 Vice-Presidents—J. J. Thomas of Cayuga, Wm. B. Smith of Onondaga, W. R. Coppock of Erie.  
 Secretary—C. P. Bissell of Rochester.  
 Treasurer—W. P. Townsend of Lockport.  
 Executive Committee—P. Barry, J. J. Thomas, C. L. Hoag, W. B. Smith, Joseph Frost.

In consideration of his indefatigable labors, the Secretary, C. P. BISSELL, was unanimously elected a member for life.

Among the subjects for discussion was the best

**Mode of Training Apple Trees.**

Mr. Sharp of Lockport, preferred trees branching near the ground—such branches were stouter, and supported the load of fruit better than the weaker branches which come out higher up. B. Fish agreed with this opinion that branches near the ground were less liable to bend down. H. E. Hooker thought the best form for an apple tree was not yet decided, but must vary with the growth of each variety. The Spy and English Russet grow quite upright—the Rhode Island Greening is crooked and spreading—the Baldwin is a medium and a model. These must be differently treated. The King is spreading, and thin, and if the inside were thinned out, as is practiced with the Spy, little would be left; the tree would be spoiled. Trees will preserve their distinctive shape, and cannot be made to grow in other forms. P. Barry said there was a diversity of opinion as to the height of nursery apple trees; some wanted them two feet up to the branches, others four feet, and others again six feet. He prefers about four or five feet, at the most, or rather low-headed, which gives them some important advantages. The sap does not have to travel so far to the head—the branches are stronger, they are less exposed to the winds, the tree is less liable to accidents—tall stems are often injured by the bark being burnt by the sun and killed by exposure—low-branched trees on the other hand are generally healthy. Tall trees bend from the prevailing winds, and the higher they are pruned the more they lean in one direction. Low heads are more easily pruned; tall ones require a long ladder, and the operator has to lay hold or hop around like a monkey to accomplish his work, and it is then badly done. Many prefer trees so tall that horses may pass under them in cultivation—he did not agree with this opinion, but would do the cultivating and top-dressing by hand.

E. Moody of Lockport, thought we would have to come to some general principle of orchard cultivation to suit farmers, and he saw no objection to cultivating with the plow. He preferred low-headed trees. In pruning, he accommodated his practice to the particular mode of growth of each variety—in the Greening, for instance, he would remove the more horizontal branches, and retain the upright; the Northern Spy, on the contrary, he would keep of open head by taking out the upright shoots. When heads are trained high, he finds the sun to injure the south side of such slightly tender kinds as Rhode Island Greening and Roxbury Russet. Dr. Beadle of Canada West,

had seen trees pruned up with heads seven or eight feet high, and when some twelve years old and about five feet in diameter, the bark had been killed from top to bottom, by the scalding effect of the sun's rays, apparently after severe freezing. He had never seen low-headed trees thus injured. He alluded to the common objection that teams could not be driven under such branches with a wagon, and even with a load of hay, but did not know what business a farmer has to drive such loads under them. He had observed tall trees bent from the northwest winds, and whole orchards with their arms thus apparently reaching forward in an easterly direction. He did not approve of plowing the roots, and thought no plow should ever be in an orchard, but the roots allowed to run near the surface. He thought that low branches partake of the nature of the trunk, and are stiffer and less liable to be bent down than high limbs.

H. E. Hooker said that the advocates of low pruning exclusively, urged extreme cases in defence of their views, and did not allow any medium. In order to avoid one extreme, it is not necessary to run into the other—nor to speak of trees trimmed up 10 or 12 feet high. He prefers about five feet. Farmers could not be induced to fork up the soil of their trees by hand—they must use the plow, especially those who raise fruit largely for market. An orchard must be cultivated to do well, but this will not be done, unless by horse power. E. Moody cultivated his orchard by the use of the plow and cultivator, with the horse attached to a short, round-end whipple-tree, the rod being fastened to one side of the beam so as to throw the plow to one side, and by this means he can run quite near the tree, and in fact cuts away all the grass or sod. He has a fine orchard, kept mellow with the plow. Unless horse power could be admitted, the cultivation of orchards would be entirely neglected. W. B. Smith thought that Mr. Barry's mode of hand and surface culture best adapted to dwarfs, where horses could not be used to advantage after the trees come into bearing. But the owners of large orchards cannot think of forking up the soil by hand. The plowing need not be done very near the tree, where it might injure the roots. P. Barry said he thought farmers should do the work as well as others—they should do things right as well as amateurs and gardeners. He recommended horse cultivation when the trees were young, but as they became larger, the plow should not pass so near, but manure, ashes, and forking will finish up the work near the tree, well and clean.

A member inquired for experiments, and not theorizing to show the relative advantages of plowing orchards and merely stirring a thin surface, or top dressing—he doubted whether all the mutilation the roots received would produce so bad a result as a want of a good depth of mellow surface. Dr. Sylvester of Lyons, said he had been induced to change his views on this subject by witnessing such an experiment. He thought the most desirable point was to have a shaded trunk; but we must plow and cultivate. The branches should allow the horses to pass under—he had an experienced mare that had learned to "make her manners" to every low tree, and by passing alternately right and left, or on each side of the row, he can plow nearly the whole surface. He uses a short whipple tree with rounded ends covered with carpet, to prevent bruising the bark. He has ten acres in orchard, one part in sod, top dressed yearly with manure, and the other plowed "clear up to the trees." The former do not grow quite so thriftily, although nearly so; but the fruit is inferior in quality and less in quantity than on the plowed portion.

Mr. Sharp of Lockport, had provided himself with two small mules, in order that the cultivating might be well done under his low headed trees, and if these animals prove too large, he intends to get a team of jackasses for this service.

CATERPILLARS.—A quoted writer says, "I took a pan, large and flat, filled it with burning charcoal, and placed it under a tree—then added a pint of rosin, and two ounces of sulphur. The fumes scattered the worms."



[For the Country Gentleman and Cultivator.]

### STOCK FARMING IN OHIO.

HOW INDIAN CORN IS CONVERTED INTO BEEF AND PORK IN THE SCIOTO VALLEY—CATTLE AND PIG FEEDING ON WHOLESALE PRINCIPLES.

MESSRS. EDITORS.—As much has been written for your and kindred journals East, of late, about the benefits and necessities of cutting coarse feed, and cooking or steaming grains for cattle, hogs, &c., I have thought a description of our *wholesale*, uncut and unground system of stock-feeding, &c., might not prove uninteresting or unprofitable to those who advocate "cutting and steaming," as the *always desideratum*, and that they might *relax* their tenacious views somewhat, by having a few *facts* and figures for comparison.

As our county of Madison is situate in the heart of the great Scioto Valley Region, noted for its cattle, hogs, corn and grazing, I propose to select this county as a sample of the whole, and first, from statistics, show *in part* what are our capacities and what we produce.

First—We have of taxable lands 286,771 acres, with a population (1860) of a trifle over 13,000.

Second—Our savannas are divided into larger farms—and *more* large farms—than any other county in Ohio, there being 45 (1858) men owning over 640 acres each—many having 2,000 to 3,000, and some ranging up to 5,000 and even 8,000 acres each.

Third—We had in 1858, 21,587 head of neat stock on which we paid taxes, at a valuation of \$544,300, or an average per head of \$25.21 each, which includes all kinds and ages over six months. This was far ahead of the valuation of any other county in the State.

Fourth—We had same year, 29,847 head of hogs, valued at \$106,836.

Fifth—To grow and mature these cattle and hogs, we had our grazing lands and (estimated in 1858,) 16,057 tons of hay, also 23,043 acres of corn, making 1,143,046 bushels.

Our farms averaging large, it of course requires a correspondingly large number of the various animals to stock them and consume their productions. Barns to hold these grasses and cereals, with their rough feed accompaniments, are out of the question, as all will honestly admit.

Permit me to explain *how* we feed our hogs and cattle, as briefly as may be explicable.

First—The hogs, if designed to fatten, are allowed a clover range by our best farmers, during summer, throwing them as much old corn as will be eaten clean, until August. By this time rye or oats are sufficiently matured to turn into. This is accomplished as follows: Temporary fences are constructed, "cutting off" from three to five acres, on which the hogs are placed—when nearly consumed, an additional three to five acre lot is struck off, the fat hogs placed in the *new piece*, while in the *first* lot are placed a few young pigs, (or shoats as we term them,) to glean all scattering grains. In this way none is lost. By the time the small grains are used up, the new early corn is ripened sufficiently, and in the same manner as above, small pieces are "fenced off," the stock hogs following the larger ones. This we of the West term "hogging down."

This method has many advantages; some of the most prominent I will specify: First—One or two men, a few hours each day, three to six days, to remove fence and

inclose a new "patch," is all the manual labor required to fatten the hogs while eating corn by this plan. Second—The animals are never stinted, being changed so soon as the supply begins to grow scarce. Third—By frequent changes the ground is not injured by packing, and the hogs are kept from making the ground muddy by removals. Fourth—All that is grown upon the soil is *immediately* replaced without labor, by the stalks and manure, leaving the soil in good condition for succeeding crops. Fifth—Nothing is lost. The young hogs thrive well on the leavings of the fattenings, and from one to one and a half pounds of pork is thus economically made upon each hog per day, at a far less expense of time and trouble than if cooked and steamed feed were used, both of which are utterly impossible when feeding large numbers.

But enough of this "hog talk" for the present, and let us look at the neat animals and *how* they are fattened *without* steamed or chopped feed. First—cattle are generally kept in pastures summer and winter, being fed, during the latter, hay from stack, or corn fodder from husked corn, until three years old, (though some fatten their neat stock the winter after they are two years old.) At this age they are placed in "feed pens" from the first to middle of November. Two of these pens, of from two to five acres in extent, are selected on the highest, driest, poorest parts of the farm, as contiguous to corn to be fed out, as possible—which is taken from shocks 12 hills square—144 hills to shock, or stook—generally, not to exceed 100 head to each lot. It is of course understood that the cattle have had good grazing during summer, and are presumed to be fat when going into lots.

Good feeders allow from 15 to 25 days to bring the cattle up to "full feed," as we term it—that is, we begin with, say two shocks, twice each day, and gradually increase it, (to prevent any from foundering or becoming cloyed), until they have all that will be eaten. The tops and blades of fodder supplies all *rough* food needed, and the corn puts on the desirable flesh. When "on full feed," they will pass much corn, whole, with manure.

Your Eastern husbandman will exclaim, right off, "Oh what poor economy!" But please do not pass judgment too hastily. Let me explain how we manage to have this all turned to good account and saved. I stated previously that *two* feeding lots were prepared. In one of these are kept—to every 100 head of cattle—150 stock hogs, that will weigh at beginning of feeding season, from 60 to 75 or 100 pounds gross. After the cattle have eaten in lot No. 1, all the corn they wish, the hogs are turned in to pick up all these *manurial* corn droppings, and any left by cattle uneaten.

At the evening feeding, the corn is first scattered in lot No. 2—the cattle are then let in—the hogs remaining in No. 1 until cattle are through—then changed as before, and so on. The stalks uneaten, soon form a dry bed, to keep feed out of mud, and the oxen to "feed-waggon" keep this semi-daily round without a driver. In this way one man, with three or four yokes of oxen, will easily feed 100 head of cattle, this being the number usually allowed as one man's work.

It is expected that each steer, if full fed—that is, full until grass is ready to turn upon in spring, will consume about 60 bushels of corn. The feeding season lasts from 1st to middle of Nov. until 1st of April if an early spring, but often to last of April, or 1st of May. But at the same time, the 60 bushels for steer will also fatten one and a half hogs to each steer. The hogs usually increase during a full feeding term from 100 to 150 or even 200 pounds—in other words, say the shoat at beginning weighs 75 to 100 pounds, at the close, he will be ready for market, and go off with cattle, fat, grossing from 225 pounds to 250 or 300 pounds.

Ohio sends annually to New-York market, large numbers of fat cattle and hogs—(from the Tribune report in 1858, fully one-fourth of all sold there of the former, came from Ohio.) In 1858 there were shipped, east, from Cleveland, Ohio, 124,046 head; the same year we are reported to furnish New-York market 53,652 head—quite large numbers of the remaining shipment went to Albany



and Brighton, and the remainder were taken by New-York feeders and graziers, and eventually were marketed as from that State. In 1858 this State furnished 688 more than Illinois, and 22,682 head more than your State.

Many of our feeders fatten on corn 100 to 300 head, and oftentimes double these numbers of neat stock each year, and from 300 to 500, and one of my neighbors the present year 1,000 head of hogs. That it is *impossible* and *impracticable*—neither economic—to cut, or grind, or steam food for *either*, when fed on such a scale, *all* will admit.

The candid reader who will review our system, must admit that our losses of grain are comparatively nominal; by the *mixed* system of hogs to follow cattle, they not only *save* the droppings and what cattle tramp into mud, but also accumulate fat themselves in a corresponding ratio with the neat animals. Thus we are enabled to "kill two birds with one stone," to use a homely phrase, and also consume our grain profitably and economically, at a small outlay of manual labor. But were it even possible, with barns, hands and machines, to cut the corn-fodder, (which is our main rough feed for cattle and sheep,) it would be labor in vain so far as stock eating it is concerned. Our corn is planted, not in drills, but in rows *both* ways, averaging about  $3\frac{1}{2}$  feet between hills each way. The cornstalks attain a height of 12 to 15 or more feet—I have seen many fields in which one-fourth of the ears were so high from the ground, that a tall man could not "hang his hat on the ears" from the ground. These stalks, where cut off when shocking, are from  $1\frac{1}{2}$  to 2 inches or more in diameter, and when dried out are almost as hard as wood; true, there is much sugar in them, as is in proof from grinding, having seen an excellent syrup made from these before the advent of sorghum. Yet if cut up, nothing could or *would* eat them to any amount. We use them for manure, and that is the most that could be made of them even if cut.

And here let me digress again, to inquire of those who sow or drill corn for feed *only*, how they are enabled to cure it without moulding? I have tried it both ways—in drills, thick, and sown three bushels to the acre, but but was unable to do anything with it except to cut and feed immediately out to milch cows or sheep—could not succeed in drying it sufficiently to prevent moulding when placed in stack or barn. If any of your readers have been successful in preventing this by curing, I should be much pleased to have the *modus operandi* through your columns.

But to return and close. Labor at the West is so high, and working men so scarce, that we find it is our most *economic* course that brings us the most *actual* returns. In your, and other older eastern States, where labor is cheaper and farms smaller, with suitable barns to accommodate both feed and stock, the cutting and steaming, with ground grains, will perhaps prove most economical; but that we of the West are to be benefited by the adoption of such systems for many years to come, admits of a doubt; nay, is *wholly* and entirely *impracticable*.

Hickory Grove, London, Madison Co., O.

"W."

[For the Country Gentleman and Cultivator.]

#### Bots---Prevention Better than Cure.

In the winter of 1850, I was passing through Vermont, and stopped for the night at an old farmer's by the name of David Ruggles. The next morning one of my horses was suffering severely from an attack of the bots. A large dose of sage tea, made very strong, and sweetened with molasses, caused them to relax their hold, and I was soon enabled to pursue my journey. Before doing so my host informed me that he kept salt and ashes constantly before his horses, and said he thought it was a sure preventive.

Thinking it worthy of trial, upon my arrival home I rigged a box in each of my stalls, and put salt and ashes in equal proportion in them. Since then I have had a great many different horses, but have not had occasion to doctor for bots. Of course, I am not *certain* that the above prevented the bots, but I have no doubts on the subject.

ST. LAWRENCE.

#### TO AVOID RUNNING OUT OF HAY.

Every farmer naturally has an aversion to running out of hay in spring before grass comes. No one desires to buy that which he ought to have raised, to keep his cattle from starving; and the only alternative, when short of fodder, namely, placing them on short allowance, is still worse. The farmer should know before he enters winter, whether he has enough feed for all his domestic animals.

To ascertain this, many resort to past experience, determining as nearly as they can, by guess—often by a very vague kind of guessing. Those who have kept careful record of the number of tons consumed by a given head of cattle, or a certain number of horses, may determine more nearly. Where the cattle and horses have been weighed, and the aggregate weight of the herd thus determined, the estimate may be made with considerable accuracy. Some animals eat more than others for the same weight; a greater difference is occasioned by the severity or mildness of the weather, or the degree of shelter given from the cold; but as a general rule, a horse should have three per cent of his weight daily in food (hay or grain,) and cattle, which digest better, two and a half per cent. If the farmer has ascertained the number of tons of fodder he has deposited in his barn, he may now, if he understands arithmetic, determine pretty nearly, how his hay is likely to run, before grass time.

If he has no record of the amount of his hay, he may determine, very nearly, by measuring. First, by finding the length, breadth, and depth of the hay, he at once knows the number of cubic feet. Good solid timothy, the average of a bay 12 or 15 feet deep, will weigh a ton to about 500 cubic feet. If the hay is clover, it will require 600 or 650 for a ton; and if the hay is only 5 or 6 feet deep, add one-sixth more.

After determining the number of tons, and the whole weight of all his animals, he may at once know if he has enough. The result will, however, be considerably modified by causes which he has more or less at his control. Regularity in feeding will have its influence; good feeding-racks will prevent much waste; and comfortable shelter will save many tons to every large herd. A skillful farmer informed us, that formerly when he had just erected a fine new barn, with ample shelter of the best kind, he had learned, as he thought, according to his usual estimate, that he would have to buy hay to complete the wintering of his animals; but on trying his new sheds and stables, so great was the saving actually effected, that he had several tons the next spring to spare.

[For the Cultivator and Country Gentleman.]

#### Which Variety of Swine is Best.

Most people admit that in all but size, the Suffolk combines the most desirable qualities, being white, very quiet, small consumers, will fatten at any age, and give more lard and first quality meat, in proportion to gross weight, than any other variety.

That there need be no lack of size, has been demonstrated, and was again shown last week by Mr. S. Whedon of this town, who slaughtered a Suffolk hog which weighed 608 pounds, after hanging 24 hours in a freezing atmosphere. This hog was bred from a dam descended from stock imported by S. W. Jewett, Esq. Vt., and his sire was bred by the Messrs. Stickney of Boston, from parents which had taken prizes at the show of the Royal Agricultural Society in England.

E. MARKS.

Camillus, N. Y., Dec., 1861.

## The Dairy Department.

### CHEESE PER COW.

Mr. E. P. HAYNES of Barre, Mass, who owns a farm of 260 acres, mostly rough and rocky but excellent for grass and pasturing, writes to the COUNTRY GENTLEMAN, that he keeps twenty-four cows and about fifteen head of oxen and young cattle; and that he last year (1860) made 15,600 lbs. of Cheese from 23 cows and 1 two-year old heifer, besides fattening and raising several calves. This would give an average of 650 lbs. per cow—certainly a good yield. Mr. Haynes, we are pleased to learn, is improving his cattle. He is the owner of the Short-horn bull "Judge Haliburton," out of Rump 2d, sired by Monarch (718,) and has recently purchased heifer and bull calves of the same breed, with good pedigrees.

### Profits of Cheese, Butter, and Milk.

Can you, or some of the readers of the Co. GENT., inform me which would be the most profitable, to a man having a dairy that will yield 100 quarts of good milk per day, through the summer season, to make butter at 18 cents per pound, or cheese at 6 cents per pound, or to sell the milk at 2½ cents per quart when milked.

Deerfield, Mass.

C. D.

A good cow, well fed, will make some 200 lbs. of butter, and 6 or 700 lbs. of cheese yearly. The relative quantity of each will differ considerably with the cow, kind of feed, management, skill in manufacture, &c. The same animal will give about 2,500 quarts of milk, if properly fed—which at 2½ cents per quart would be over sixty dollars, or fifty per cent. more than the butter or cheese at the prices stated, besides avoiding the labor of making them. It is not unusual for good cows, from the first pasture till harvest, to give sixteen quarts a day, or 112 quarts of milk per week—which at 2 cents per quart would be \$2.24 per week. More than 11 pounds of butter, at 20 cents per pound, would be required to yield this sum. Hence the greater profits of selling milk, when there is a market, are obvious.

### Letter from a Pennsylvania Butter Maker.

Dr. ELWYN of Philadelphia, kindly furnishes for *The Country Gentleman*, the following Letter from a Dairy Farmer of long and extensive experience:—

PHILADELPHIA, 1st mo. 2d, 1862.

ESTEEMED FRIEND—Having been requested by thee to write out a statement of the process of making good butter, I have to observe that good cows and rich pasturage—natural grasses—green grass and white clover, are the essential basis, together with cleanliness and proper management.

The proper management, as I conceive, would be to skim the milk at all times within thirty-six hours after being milked; and in order to effect this, a small quantity of sour milk should be put into each pan at the straining of the milk. The judgment of the dairy-manager should regulate the quantity according to the state of the atmosphere. When the cream is skimmed into the cream-pot, it should be stirred morning and evening until churned, which should be done every three days during the warm weather, and all the year if the quantity of cream would warrant it. After the butter is broken in the churn to the size of chestnuts, the milk should be drawn off from the vent-hole, through a fine sieve, and then a sufficient quantity of cold water put in the churn and tumbled a few times—drawn off as before—more water put in, and tumbled again. The water should then be all drawn off, and the butter will then lay in a mass in the churn, which should be cut promiscuously about, for the purpose of re-

ceiving the salt, which should be a full pint for fifty pounds, and the same proportion for less or more. The butter should then be tumbled in the churn sufficiently to mix the salt. It should then be taken out of the churn and lumped into pounds as nearly as possible, and sponged, weighed, and printed. A sponge of proper size, enclosed in a coarse linen cloth, should be pressed on each lump until all the brine is extracted, before being weighed.

The most particular part of the process, is attention to the skimming and management of the cream, to prevent rancidity from taking place before churning, for if the cream is bad, the butter must necessarily be bad.

To Doctor A. L. ELWYN.

HOMER EACHUS.

### A CHENANGO COUNTY DAIRY.

We acknowledged last Autumn the receipt of a very superior tub of Butter from JOHN SHATTUCK, Esq., of Chenango County. Mr. S. has since kindly furnished, in response to our request, the following statement as to the production of his Dairy during the past season. Before giving it, we may remark that the sample of Butter sent us by Mr. S., was pronounced remarkable for sweetness and excellence by all who tried it; and, what is a point worth noticing, it was salted with the "Factory filled" Dairy Salt of Syracuse, which Mr. S. considers equal to the Ashton for butter. That his butter is none the worse for it, is evidenced not only by our own personal test, but also by the fact that his dairy was sold last Autumn for 23 cts. per pound in New-York, while his Spring butter, which was sent to market at a time when the prices were almost at their lowest point, netted him something over 17 cents. Mr. SHATTUCK says:—

The number of cows I have milked this season was 23, up to Nov. 1st, when two were sold. I find by reference to my memorandum, that the first tub was filled March 30th. I have kept no account of the time the cows came in, but from memory I should say mostly in the month of April, some in May, and one or two quite the last of the latter month.

Total amount of butter made.....	5,130 lbs.
do. do. do. sold, .....	4,846 do.
Leaving amount used in family, and on hand.....	284 do.
Total average per cow, .....	223 do.
Total amount of sales of Dairy 4,204 lbs., at 23 cts., .....	\$966.92
Spring and late fall butter sent to New-York, 642 lbs., total amount, .....	111.94
Total amount used and on hand, 284 lbs., at 23 cts., .....	65.32
Fourteen deacon skins, sold at four shillings, .....	7.00
Nine calves raised on skimmed milk.....	35.00
Value of pork raised from Dairy slops.....	100.00

Total amount..... \$1,266.18

Which gives \$55.92 to each cow; and taking out what we have used, leaves \$53.08 actual sales to each cow.

No allowance is made for milk and cream used in family, which has consisted of eight persons most of the time during the season. I received the first premium on butter at Oxford Fair, 1861.

If I were to say any thing in regard to dairying, I would advise most farmers to keep fewer cows, and keep them better. The longer I dairy it, the more thoroughly I am convinced that a less number of cows would yield a much better profit than over stocking does. The truth is that every cow should be kept so as to yield her utmost quantity of milk in order to get the largest profit; and in order to do that, they must have all the feed they want, and that of good quality during the milking season.

I think one important thing in the care of cows, is in keeping them sheltered in the cold fall rains and frosty nights. And a few roots fed whilst changing from grass to hay, helps to keep up the quantity of milk very much. I would recommend in the dairy districts a more thorough attention to the breeding of stock with reference to their milking qualities, which I think might be greatly improved. If we desire and expect a choice herd of cows, we must breed with special reference to the points and qualities we wish to develop.

JOHN SHATTUCK.

Near Norwich, Dec. 30, 1861.



## Domestic Economy and Cookery.

[For the Country Gentleman and Cultivator.]

### Directions for Making Yeast and Good Bread.

EDITORS CO. GENT.—All housekeepers who desire to make good bread have only to follow the receipt given below to secure that happy result. I have tested the matter, and *know* that there is no humbug; and all the extra trouble about it is more than balanced by the superior quality of the article produced. Firstly:

#### To Make Yeast.

Take two handfuls of hops, 3 pints of water, 6 potatoes, and boil them all until the potatoes are soft; then pare them, mash through a cullender and strain the liquid. Put it in your preserving kettle over the fire, and add 1 cup of sugar, 1 tablespoonful of salt, and 1 of ginger; add flour enough to make it of the consistency of paste, and then let it boil five minutes, stirring it all the time. Turn out, and when partially cool add half a pint of good yeast. Let this stand till fermentation takes place, and the job is done. In the winter I keep it in a stone jar in the cellar; but in the summer I dry it by mixing it with corn meal, and spreading it on the table exposed to the air, (not sun.) Secondly:

#### To Make Bread.

Wash and pare 24 good potatoes; boil them with a large handful of salt till reduced to a fine pulp; strain through a cullender, add 3 pints of sweet milk, and when cool enough to bear your hand in it, stir in enough flour to make it a thick batter; to this sponge add a coffee cup of the yeast, making the sponge at night. In the morning I add six quarts of new or sweet milk, and 3 gills of lime-water, and knead it into a stiff dough. In two or three hours after kneading it will be as light and porous as honey comb; knead it down, and after it has again risen, mould it and put it into pans. Let it stand till it rises again; then wash the loaves over with cold water—this prevents the formation of too hard a crust—and bake in a well heated oven. When baked, wash again, wrapping it closely in your bread cloth. Give this a fair trial, and I will warrant satisfaction.

Merrillsville, Mich.

H. W. H.

[For the Country Gentleman and Cultivator.]

### To Remove Slivers from the Eye.

EDITORS OF COUNTRY GENT.—The following bit of surgery I learned many years since, from a skillful surgeon, a Scotchman, who hailed from Edinburgh. I have never seen it in print, but think it ought to be so, as both simple and safe in its operations:

To remove from the eye a sliver that adheres closely—such as one from stone, steel or iron, prepare a goose-quill, by cutting as for making a pen, leaving the lower end narrow and long. Bevel this strip on its inside, from its centre, so as to form sharp edges at the outside of the quill. Bend this quill bevelled side in, in the form of a bow. Keep the bow in form by tying with a thread the two parts of the quill that meet.

Let the patient recline on his back. Apply a scissors-bow over the eye, holding with the left hand and pressing sufficiently to keep the eye from rolling in its socket. Then, with the other hand, place the extreme point of the quill-bow on the eye—one of its edges near the sliver, then press upon the quill. The eye will *dent*, that is, give way under the bow. Then lean the quill in the direction towards the sliver, so that the bow may scrape the eye. Then move the quill *steadily* in the direction of the sliver, hitching its edge under, and raising it from the eye.

The advantage of the above method of operating with the quill, instead of the knife or lancet, (which are often used,) is, that there is not the least danger of cutting the eye, because the quill does not contain sufficient hardness, combined with its strength, to carry a cutting edge. As one instance of the efficacy of the above method, I will mention

a case that occurred some twenty years since, under my own observation. A plane maker received in his eye a sliver of steel, from the plane-iron. A skillful physician tried to remove it, using his lancet, but gave up the attempt, saying there was danger of destroying the eye by cutting; that the eye would soon fester and the sliver come out of itself. The use of the simple quill, immediately thereafter, removed the sliver, and relieved the patient.

AMOS FISH.

Bethlehem, N. Y.

[For the Country Gentleman and Cultivator.]

### HOW TO MAKE CIDER WINE.

MESSRS. EDITORS—One of your correspondents in the COUNTRY GENTLEMAN for Dec. 5th, asked for a receipt for making cider wine, and I have thought that the following might be just what he wants:

Put your new cider into clean casks or barrels, and allow it to ferment from one to three weeks, according as the weather is cool or warm. When it has attained to lively fermentation, add to each gallon three-fourths of a pound of white sugar, and let the whole ferment again until it possesses nearly the brisk pleasant taste which it is desirable should be permanent. Pour out a quart of the cider and mix with it one quarter of an ounce of sulphite of lime for every gallon the cask contains. Stir until it is intimately mixed, and pour the emulsion into the liquid. Agitate the contents of the cask thoroughly for a few moments, then let it rest, that the cider may settle. Fermentation will be arrested at once, and will not be resumed. It may be bottled in the course of a few weeks, or it may be allowed to remain in the cask and used on draught. If bottled, it will become a sparkling cider—better than what is called champagne wine.

Boscawen, N. H.

JOHN C. GITCHELL.

[For the Country Gentleman and Cultivator.]

### Union Washing Machine and Universal Clothes-Wringer.

MESSRS. EDITORS—A writer in the COUNTRY GENTLEMAN of Dec. 26, asks for the experience of any one who may have used the Union washing-machine. Having used it to our perfect satisfaction, during the past eight months, in doing the washing for a farmer's family of nine persons, we feel authorized in saying that no one, after a short trial, would be willing to dispense with so invaluable an aid to the labors of washing-day as this machine affords. We procured it from the manufacturer, at a distance of over two hundred miles, from a notice we saw in the COUNTRY GENTLEMAN, feeling sure that any recommendation under the sanction of its Editors, would be reliable, and we are more than satisfied with the result. It possesses many advantages over all other machines (of which there are a great variety,) used in this vicinity. We have never used any other, but a woman who washes for us and for many other families, says she decidedly prefers the Union to any other kind she meets with in her rounds.

We have lately procured the "Universal Clothes-Wringer," from the same recommendation, and have found it fully to answer the advertisement, that "it would wring anything from a collar to a bed-quilt." We feel sure that should your correspondent procure either or both of these machines, he would feel that his money was well expended.

P.

Manchester, Vt., Dec. 26, 1861.

### RECIPE FOR CORN BREAD.

The Agriculturist recently offered prizes for Corn Bread. The competition was large and four premiums were awarded. The sample taking the first premium came from Mr. James O'Brien, Carrick, Pa., who says that it was made according to the following directions: To two quarts of meal add one pint of bread sponge; water sufficiently to wet the whole; add half a pint of flour, and a tablespoonful of salt; let it rise then knead well for the second time, and place the dough in the oven, and allow it to bake an hour and a half.



ALBANY, N. Y., FEBRUARY, 1862.

☞ The price at which THE CULTIVATOR furnishes is so exceedingly low, in comparison with the contents it offers from month to month, that even in these times, we cannot resist the temptation to urge its claims upon every practical farmer. It is not yet too late for much to be done in extending its circulation. We earnestly hope that those who have already enrolled themselves upon its lists, will endeavor to procure a few more subscribers among their friends; additions to clubs are always received at club rates, and the papers sent to different post offices if desired.

And may we not also hope to renew our monthly intercourse with many of our former friends? We mean that the present volume shall be equally as interesting and valuable as any that has ever preceded it, and to make it compare favorably in both respects, with other periodicals published at twice the price. We cannot do this without a sacrifice on our part; and we therefore think we may fairly call upon all energetic and enterprising supporters of Agricultural Improvement, to lend a helping hand by devoting a few hours, the first pleasant leisure day, to canvassing for THE CULTIVATOR and REGISTER among their neighbors.

☞ In answer to many inquiries, we desire to say that the ANNUAL REGISTER OF RURAL AFFAIRS has now been published eight years, and that either of the back numbers from the beginning may be had post-paid for 25 cents. Their contents are of permanent value, and the back numbers are consequently in constant demand. Complete sets of the eight numbers are sent post-paid for \$1.60, and contain altogether about Twelve Hundred Engravings! To those who already have the Number for 1862, we will send the seven previous numbers for \$1.40.

☞ A cheap but very comprehensive Agricultural Library, fully indexed, touching upon nearly every topic of interest to the Farmer or Fruit-grower, and comprising also a quite complete history of the agricultural progress of the past Nine years, may be had in the Third Series of THE CULTIVATOR, including the Nine Volumes from 1853 to 1861. They are sent to any part of the Country (by express or otherwise, at the expense of the purchaser) for seventy-five cents each, well and neatly bound in muslin, or by mail post paid at \$1 each. Having lately reprinted missing numbers we call the attention of new subscribers, or of old subscribers whose sets are incomplete, to the convenience and usefulness of having the bound volumes, by the purchase of which (at \$6.75 for the set) nearly thirty-five hundred closely printed, double-column pages are obtained. For private libraries, or for those of Farmer's Clubs, District Schools, and other public institutions, they present equal attractions.

☞ The great thing, after all, in any pursuit, is a determination to excel and to succeed. And in the comparison so often urged between Farming and other occupations, if we were to take into account the degree of close application, unwearying thought, and eager ambition

not to be "the hindmost," manifested respectively in the City and in the Country,—we should perhaps gain as correct a key as any, to the reason why the former should apparently contain more instances of energetic and profitable industry than the latter. To provoke the Farmer's ambition, to lead to more enlarged and careful thought, and greater mental application, is perhaps the first and chief use of all our Agricultural periodicals and societies.

It is a recent letter from our old friend JOHN JOHNSTON, which has suggested the above paragraph. Although intended exclusively for our own eye, he will pardon our calling the attention of our readers, and of young farmers especially, to the illustration it affords of what has just been said. Those who have been acquainted with Mr. J.'s previous history will remember that he took a clay farm when a young man, which no one expected he could make a living on, and that, with Scotch pertinacity, combined possibly with some American go-ahead-iveness, he has drained and tilled and manured it into a prominent rank among the most productive farms in the State. Having retired from active farming two or three years ago, we thought he had permanently exchanged his out-door labors for those of the pen and tongue, in answering the frequent calls upon him for suggestions and advice, and in imparting to others in retirement the benefit of his experience in the field.

But our friend appears to find sitting at the desk more irksome than standing at the plow handles; and, if he should not now actually undertake the latter in person, he has determined to "try it again" by deputy. With two pair of work horses to a hundred acres, he means to show that his right hand has not yet by any means forgotten its cunning in practice, as well as in counsel; and he promises with the leave of Providence that we shall eventually hear of better crops on the old farm than it has ever raised before. "I have my plans laid," he writes, "if I am spared for a few years, to harvest a good crop of winter wheat in 1863; farmers ought to look ahead several years, to raise good crops—that is, young and middle-aged farmers, and I cannot help looking ahead, although an old one."

Forecast, energy, perseverance—what can they not accomplish? Upon a miscellaneous page of this number, will be found examples from that interesting work of Mr. SMILES, "Self-Help," of "Men who have Risen;" and their biographies if we were to consult them, would show what these qualities can be made to accomplish against discouragements and obstacles. Something of the same spirit ought of right to be infused among our farmers; it is in this spirit that their successes are only won.

☞ An esteemed subscriber of Canada West, whose name has been on our books for many years, in recently sending his annual list for 1862, speaks very kindly of the good results which have been apparent from the reading of our Journals, and adds, as a part of the argument he has employed in obtaining subscribers for them:—"The information collected from the many able correspondents of THE CULTIVATOR and COUNTRY GENTLEMAN; the frequent visits of the editors to different parts of the United States and Europe, their close inspection of the best cultivated farms, together with the intelligence given by the proprietors of the best cultivated farms as regards their manner of cultivation, the convenience of their buildings, and various other agricultural information when published by the editors of these Journals, all combine to afford a most valuable fund of instruction to the agriculturist, rarely to be found in any other periodical of the kind."

☞ Our correspondent, Mr. D. A. A. NICHOLS, late of Westfield, in this State, has, we see, removed to Springfield, Ohio, and become one of the editors of the Springfield Daily News.



Annual meeting of the New-York State Agricultural Society will be held in this city on the second Wednesday of this month.

There are two or three things which it is pleasant to find characterizing the history and condition of an Agricultural Society. We propose to allude to them very briefly—the text of our remarks being now before us, in the shape of recent publications emanating from County Societies in our sister State of Massachusetts,—those of "Essex" and "Hampden" which we have heretofore acknowledged, and of "Hampshire, Franklin and Hampden," which last has just come to hand from the president of the Society, T. G. HUNTINGTON, Esq.

1. The first pleasant feature in a Society to which we wish to refer, is one which Time alone can give, but the attainment of which, mismanagement, mutual jealousies, or local quarrels, can very certainly prevent, viz., a healthy *old age*. The Hampshire, Franklin and Hampden Society has now issued its *forty-third annual report*. During that period it has had but 13 Presidents, the terms of service of the first twelve having averaged over three years each, while the present presiding Officer is now entering upon his fourth year in the Chair. All this seems to us to indicate a general co-operation and unanimity of feeling, a high appreciation of the importance of such associations, and a willingness on the part of individuals to labor in earnest for the common good.

2. It is also a good sign when the State does its part towards the encouragement of Agricultural Societies. Massachusetts appropriates *six hundred dollars a year* for each of her twenty-five Societies—the condition of the grant being that the society claiming it shall raise a permanent invested fund of at least \$3,000; so that a good *working capital* on which to act, is an essential pre-requisite,—a thing in itself increasing a Society's power of doing good, and at the same time tending to keep up the active interest of its members, and to give a permanent character to their proceedings.

3. A *full treasury* is always a matter of convenience both to persons and societies. The three associations above referred to report as follows:—

	Real Estate.	Personal Property.	Debt.	Receipts 1861.
H. F. and Hampden...	\$1,450	\$4,000	\$1,000	\$3,620.07
Essex, .....		8,912	.....	2,416.13
Hampden, .....	32,153	533	9,400	1,932.01

And we find by turning to Mr. Secretary FLINT's Report for 1860, that the 25 Societies of the State had then a total permanent fund of \$197,212, being an average of nearly eight thousand dollars each, and that their gross receipts that year were \$65,600.

4. The publication of a *Society's Transactions*, is, provisionally, a good thing—*provisionally*, because the propriety of publication depends both upon the matter and the manner, and especially upon the former. A newspaper will publish the premiums that are awarded, if the Committee reports are to contain, as is too often the case, nothing but the bare mention of the successful names; and if the address comes from some political gentleman, perhaps the newspaper is as well for that also; but, if a part of the committee-men, at least, will take the pains to make out instructive and readable reports, and if, when the nature of the case admits, the competitors present full and accurate statements as to the production of the article exhibited, and if the address comes either from a farmer in person, or from some one who has made either the science or the practice of agriculture a theme of careful study or observation,—then the materials are at hand for a neat pamphlet which will prove the existence of a *live Society*, and which will be worth more to its exchequer than the cost of neatly printing it, if the contents are really valuable, in the increased pecuniary support it will attract.

In all the different respects referred to, we note the general excellence of many of the local Agricultural Societies of Massachusetts. Think of the interest that must

attach to a complete set for forty or fifty years, of the annual publications of such a Society, presenting an epitome, as it would, of the course and progress of Agriculture during that time, embalming the names of the best farmers for the contemplation of their descendants, and not too bulky to be contained upon a single library shelf.

The system adopted by the Societies whose books we have before us, has been to obtain by memberships and subscriptions a certain permanent fund, the interest of which is annually drawn—the price of membership (for life) being generally five dollars for each male member, and two or two and a half dollars for females. The memberships required to make up the original capital will probably include the principal farmers of the county, but the additions obtained each year may amount, nevertheless, to from one to two or three hundred dollars, efforts for extension, of course, being always "in order." Thus a man, once a member is always a member, and if, as some Societies do, the Transactions each year contain a complete list of members, there is great pride felt on the part of every thriving farmer, that others shall not see his name omitted in this *index* to the intelligent and enterprising of his vicinity. And there can be no danger, as is occasionally the case under the system of dollar memberships commonly in vogue with us, of any clique or person's *paying the way* to offices by making members to out vote all opposition; or rather, (for we believe that the foregoing is rather a *supposable* case, than one that ever really occurs,) there must be very much less danger that any particular clique or locality should obtain a monopoly of the Society, to the exclusion, whether it be voluntary or not, of others, possessing equal rights and equal capacity, from a fair share in its honors and its control.

— We have referred thus at length to the above topics, not necessarily as advocating any fundamental changes in our own systems; but because, in the direction of our Societies, not less than in the management of our farms, we believe, as was remarked two or three weeks ago, that we may profitably examine into the systems pursued in other states—the interchange of information as to the best plans of organization for permanence and good service, having in a great degree ceased, as the Societies of each State have grown up one after another, in imitation of those in their immediate locality.

We note that Mr. DANIEL McMULLEN, of Scotch Mountain, Delaware Co., who has been successfully employing the Ayrshires for Dairy purposes, if we are not mistaken, for a number of years past, has lately added to his Ayrshire herd, by the purchase from CLARK I. HAYES, Esq., of Unadilla, of "Dandy 7th" and "Maggie," both valuable animals and coming from good stock.

A CHRISTMAS LIST.—C. P. B., in sending from Otsego Co., a Twenty Dollar list of Subscribers for Co. GENT. and REGISTER, under date of Dec. 25th, more than half of them new ones, says he takes that method of expressing his opinion that the Co. GENT. is "the best Agricultural paper in America." He could not show his sincerity in a more kindly or appreciative way.

GOODRICH'S SEEDLING POTATOES.—An experiment with several varieties of C. E. Goodrich's seedling potatoes, resulted satisfactorily. The Rusty Coat Pink-eye, Garnet Chili, and Cuzco, yielded well, and I think will prove valuable sorts. The produce of four tubers of the last named, was two bushels of good sized potatoes. I want to give them more attention the coming season.

Woodbury, N. J., Dec. 27.

W. W. G.

PUMPKINS.—As I see you sometimes record cases of remarkable productiveness in agriculture, I will state that last season I raised in common field culture, from one seed, twenty-four common field pumpkins, all of which got ripe, and weighed three hundred and twenty-four pounds, averaging thirteen and a half pounds each.

Alton, R. I.

W. F. SEGAR.

Since the efforts made by ARTHUR YOUNG, more than half a century ago, to arrive at a tolerably correct estimate of the productiveness of England in grain and meat, every thoughtful friend of Agricultural improvement, has been anxious to arrive at some method of annually collecting clear and accurate statistics of the purposes to which the land is devoted, and the degree of success with which these purposes are attained. But not to the farmer alone is this information calculated to be useful; there is no class among merchants and manufacturers whose interests it does not intimately concern, and to the political economist it would open a new field of important investigation.

All this has been fully conceded, and the only difficulty appears to have been in devising means of obtaining it, entirely free from public or private objections. It has been recently proposed in England to place the matter in the hands of the local Police throughout the country; but public opinion has seemed quite averse to allowing these gentry to intermeddle with the affairs of individuals to that extent. In Scotland the Highland and Agricultural Society has tried the experiment of collecting agricultural statistics through its agents and correspondents; and, for several years, quite successfully; until, unfortunately, there arose disputes and an inexplicable quarrel which effectually quashed farther proceedings. In Ireland Agricultural Statistics are now taken, and we believe very satisfactorily, through the agency of the constabulary force.

We are reminded of the subject just now, partly because it has been much discussed of late in our Foreign Journals, and partly because the present week witnesses the gathering of our State Legislature, whose attention is very likely to be called to the passage of a law to secure the collection of Agricultural Statistics. It is much to be hoped that such a law will be enacted. Hon. EZRA CORNELL, of Tompkins County, an Executive Officer of our State Agricultural Society, will be able to speak in the House from experience; since, as our readers are already aware, he voluntarily undertook last year to obtain the required statistics throughout his own County, for the sake of testing the matter, proving its entire feasibility, and placing an example before other Counties. These statistics have been noticed in the COUNTRY GENTLEMAN at length, and will be found in the State Society's Transactions for 1860, just published.

Mr. CORNELL's plan of obtaining Agricultural Statistics, is to have no larger area than a single School District placed under the charge of a single collector. This divides the labor among so many that the share of each is almost insignificant, and great accuracy may be thus secured. It is suggested that the Teacher of the School should be called upon to do it; and that, until done, the school moneys of the district should not be payable by the State—moneys for which the State now receives no direct return, but which would thus be made, at a cost to the teacher of two or three evenings' labor in copying out the returns received, a channel of immediate public benefit. Through the children, he could send blanks to nearly or quite every farmer in his district, and receive them by the same source when filled out; regarding the communications of each person, if so desired, as strictly confidential, and only allowing the aggregates to go forth to the public.

Another suggestion, coming from one of Mr. CORNELL's assistants in gathering the statistics of Tompkins county last year, who expended two or three days in going about through the school district for the purpose,—is that the farmers be invited to assemble on some appointed evening at the school house, bringing memoranda of the facts desired; and that they devote the evening, after completing the forms furnished for the district, to mutual intercourse and discussion. This is certainly a simple and practicable idea, tending, if properly carried out, to promote good feeling and a useful interchange of sentiments, as well as

securing the object primarily sought; and many a teacher would take pleasure in thus bringing together the parents of his charge, who on their part might find the results of the meeting of so agreeable and profitable a kind as to desire its occasional repetition throughout the winter, simply as a sort of informal Farmers' Club.

There is but one word, which should be added in conclusion: If the measure is to be proposed, and to be carried through, the project must be simplified to as great an extent as possible. Let us have the columns of figures placed at a small number at the outset, only covering the most important facts, in order that the blanks may be easily understood at a glance, and that those who may have to fill them out, shall have no discouragement in their apparent intricacy and no excuse for carelessness in the quantity of the details requested. It will be easier, when a simple and perhaps quite incomplete system is once under way, to perfect it by degrees, adding a column for this, one year, and for that, another,—than to give birth to a Minerva ready-mailed from head to foot. Or to change the figure, let us be satisfied if we can launch our boat, and when she is once fairly on the water, we can take our own time in putting in the more delicate parts of her machinery.

AN INVITATION TO BE ACCEPTED IF POSSIBLE.—L. S., of Orange County, in sending his welcome annual List for THE CULTIVATOR, remarks:—"You must grant me my request that I made last year, not to act as your agent any longer unless you will do as you are doing in other places—show yourself in this part of the country and help us who have been striving to keep up an interest in farming improvements. I hope you will think favorably of my proposal, and I will try to make your visit as agreeable as possible on my part." Nothing will please us more, if time and circumstances will admit.

HEDGES.—Much has been written by practical and theoretical experimentors, on hedge plants. Among the number of practical experimentors your humble correspondent has been found one of the foremost. I have seen much on the use of willow. I never tried it for that purpose. No doubt the yearly cuttings may be made useful, but from what experience I have had in willow-growing, I certainly should advocate the European hazel, the plant being stiff and its yearly cuttings making the best of hoop poles or bean poles. They split easy, are hard and tough, and the fruit in the nut family is unequalled.

W. M. B.

MIDGE PROOF WHEAT.—In a letter to the COUNTRY GENTLEMAN, Mr. I. W. PUTNAM of Centre Belpre, O., says—"We have a variety of wheat sown here this fall, that is proof against the midge, known as the 'Lambert.' It is a smooth head wheat, red short heads, heavy straw, stands up well, and has yielded as high as 30 bushels per acre—tillers well. One bushel per acre better than 1½ bushel of the white wheat—makes good flour, and weighs well, from 60 to 66 lbs. per bushel. If desired I will send a few heads that are about a fair average; it ripens as early as the May wheat and a larger grain. I think it a better wheat than the Mediterranean, and for thin land far ahead of the May; it has taken the place of all other varieties here or where known, and will so long as we are troubled with the midge. There is something peculiar about it that it is not affected by that little destroyer of our great staple, as none have never been found in it yet when grown in the same field."

An Iowa subscriber, to illustrate what he is willing to give for THE COUNTRY GENTLEMAN, mentions under date of Dec. 29th, that the \$2.25 he thus encloses to pay in advance for that paper and for the ANNUAL REGISTER for 1862, is an equivalent to sending us 112½ pounds of Pork, or over five and a half bushels of Wheat, or fifteen bushels of Corn! He adds: "I conclude to make the sacrifice, feeling assured that I shall be the gainer by it."



## Inquiries and Answers.

**CLOVER.**—I have tried for some time to get a kind of clover to sow with timothy that would be ready to cut when the timothy is. Last spring I got a few seed in a package from the Patent Office; it has bore but one head yet; the head was three inches long and ran to a point. Is it the right sort? J. W. C. *Beach Grove, Ind.* [The Patent Office clover, is probably the *Trifolium incarnatum*, a species of no value. The large variety of common red clover, sowed quite thick, so as not to be so coarse in stem, does pretty well to grow with timothy, as the latter needs cutting rather earlier for its period of maturity than most grasses, on account of its coarse texture. Cut as late in its season as some grasses, it is too harsh and rigid.]

**OZIER HEDGES.**—I wish to start some Ozier willow. Which is most profitable for selling to basket-makers or for hedging, the purpurea or viminalis? Will they both grow thrifty on upland? Or will either make a hedge strong enough to turn unruly stock, such as slab-sided hogs or burry sheep, or the like? How long will it take to make a fence? J. W. C. [The willow known as the purpurea, is the best for baskets. Both will make a hedge, but the purpurea being toughest, will doubtless be best. They will grow on upland, but it should be good soil, and be well cultivated for several years. Four or five years, with good management, will make a hedge, but not sufficient for furious animals. Interweaving the stems may be necessary, and a very stout growth, for such animals. Slab-sided, land-pike hogs, running in streets, and taught to pilfer their living, will pass almost any common fence, and should not be permitted in civilized neighborhoods.]

**ASPECT OF ORCHARDS.**—Shall I plant peach and dwarf pear trees so that they shall have a southern, rather than northern exposure? Please tell me which would be the better way for this latitude? J. L. *Ellicott's Mills, Md.* [Where the peach crop is occasionally destroyed by frost or the intense cold of winter, a southern sheltered aspect is not so good as more exposure, especially if the former be a warm valley,—where growth continues later in autumn and the wood does not ripen so perfectly, and become hardy, and where the cold air is likely to settle on severe nights, and prove more destructive. The time of the ripening of peaches and pears, is nearly or quite as soon on a northern as a southern exposure. (Grapes only, form an exception to this rule.) Pears will flourish in either place, and as they are rarely if ever destroyed by frost, the warm aspect is well adapted to them.]

**BARBERRY HEDGE.**—Can you tell me where to obtain information how to set out and train a hedge of Barberry plant? H. S. *Dayton, O.* [It is easy to make a barberry hedge. Plant the seed, like apple seed, taking care, after washing them from the pulp not to allow them to become dry, and expose them to freezing in winter. When one year old, set them out eight inches apart. Cultivate them well for five years, keeping a strip of land constantly clean and mellow five feet wide on each side of the hedge. As the plants never grow very tall, and are naturally very thick, they need little cutting back.]

**MUTTON SHEEP.**—Do sheep usually double their number every year, and what common breed is the best for raising mutton from? J. L. *Md.* [A flock, selected all ewes, with the best management, will usually nearly double their numbers in a year. Of course a common mixed flock of ewes and wethers will not. The common sheep of the country are of all imaginable variations, but in the northern states, they consist largely of Spanish Merino blood. Procure a Leicester or South-Down ram, and the progeny will be excellent for mutton.]

**BAROMETERS.**—When two barometers standing close together deviate some days 5 to 14, how would you recommend to obtain a correct idea which was most to be depended on? B. [It would be difficult to say, until we know the cause of the inaccuracy. Unlike a thermometer, a mercurial barometer, if the vacuum is perfect, will always show the true height, irrespective of inaccuracies in the tube, the atmosphere having full access below. But there are so many different modes of constructing barometers, that a knowledge of the mode of construction, and of the particular derangement, are necessary, in prescribing a cure.]

**OSAGE ORANGE.**—Does the Osage Orange ever sprout from the roots so as to spread into the field? J. W. C. [We have never seen it throw up suckers, but have heard of its doing so further south, in very fertile soils. When the roots are broken by the plow, it sometimes induces sprouts.]

**TREES FOR TIMBER.**—What kind of trees would you think most profitable to plant, to raise for timber for farm and farm building use—black locust, deodar, spruce, chestnut, fir, pine or what? J. W. C. *Indiana.* [Our correspondent can judge best for his own particular locality, which is best suited to the soil, grows most vigorously, and is most valuable for timber. The locust and chestnut are doubtless the best for raising in most places. The Deodar is not to be recommended at all.]

**DISEASE OF APPLE TREES.**—I have apple trees that are dying around the body, next the ground; they begin to die on the south side, and the bark becomes loose and the leaves turn yellow. E. F. [This is a disease that occasionally occurs—no certain remedy has been found. To prevent it, drain well, and give good cultivation without high manuring.]

**COAL ASHES.**—Some one inquires about hard coal ashes. I don't think one can afford to buy them, but they will pay for drawing off. There is a little lime in them, and some wood ashes from the charcoal and kindling. I have repeatedly spread them, after thorough screening, on pasture land, making a green spot which could be seen a large way off. J. S. G.

**CORN-MARKER.**—Will you please in the next number of THE CULTIVATOR, give a plan of a cheap corn-marker. A. B. [Take a piece of tough scantling, set in a couple of smooth round poles for thills, and between these, behind, a couple of old plow-handles, or a bow or frame to answer the same purpose. Then set in below, into large auger holes bored for the purpose, thick stout pins, say three inches wide, six inches long, and inclining backwards. If the scantling is nine feet long, three teeth may be inserted, each four feet apart, or if eight feet long, each may be three and a half feet apart. If the first row is straight, the rest may be kept so, by one tooth passing in the old mark.]

**OSAGE ORANGE.**—Please tell me through THE CULTIVATOR, if I can grow the Osage Orange from cuttings, taken from large plants. W. A. F. *Shirleysburg, Pa.* [They will not grow with ordinary treatment. Cuttings of the roots will sometimes produce plants, but the easiest and cheapest mode by far, is to plant the seed.]

**CORN-PLANTER.**—Will Emery's corn-planter work in a gravelly or other soil, where there are plenty of small stones? R. [Emery's corn-planter will work well where there are a few small stones; the larger and more numerous they become, the greater of course is the difficulty. If three or four inches in diameter, and not very numerous, it will pass round or thrust them aside; if abundant, it will be difficult to use it.]

**ENLARGED HOOF.**—Under the head of Inquiries and Answers, an owner of a cow complains of "enlarged hoofs," and wishes to know if the hoof will bear paring down. I answer yes—Take her to into the blacksmith's ox-frame, and with a fine saw cut off the ends to the proper length; then pare the sole as much as necessary. I had a bull treated in this manner with perfect satisfaction. L. S. *Amherst, Mass.*

**STRENGTH OF SHAFTS.**—In making a wind-mill of rather more than one-horse power, what size ought the main shaft to be; also the driving shaft, if only about eleven feet long? Which is the better way to have the power communicated, by means of cog-wheels, or a crank? If by a crank, what size should the connecting rod be? R. [There are many circumstances that modify rules for this purpose. For example,—materials vary much in strength—the best wrought or cast iron is from three to four times as strong as the poorest—and the strength of different kinds of wood varies nearly as much. Experiments have been performed in twisting iron rods, to ascertain their strength. A cast-iron rod, an inch long and an inch in diameter, with a lever to twist it 30 inches in length, broke with 436 lbs.—which multiplied by the 30 would be about 13,000 lbs. actual strength. If the arms of a wind-mill averaged 60 inches long, such a shaft would only sustain 218 lbs applied at the 60 inches distance. Wrought iron hoisted with 336 lbs and broke with 615 lbs. An inch and a half will do for one-horse power, moving slowly, with 60 inch levers or arms. When the velocity is increased, the required strength is of course diminished, according to the rule of virtual velocities, hence a shaft in a thrashing machine moving a rapidly revolving cylinder may be many times weaker than one next the horses which work it, or moving slowly. If of wood, it should be nearly twice the diameter of iron. The rule of engineers, to ascertain the strength required to resist torsion (or twisting) is the following:—Multiply the pressure on the crank-pin, or at the pitch line of the pinion, by the length of the crank or radius of the wheel in feet; divide their product by 125, and the cube root of the quotient is the diameter of the journal in inches of wrought iron. Without

knowing more of the structure of the machinery to which our correspondent alludes, we cannot answer his other questions satisfactorily.]

**SEEDING MOIST LAND.**—Is there any better grass for moist land than timothy? I have 15 acres of wet land that I drained this fall with a mole ditch; it has now a heavy growth of wild grass, and I wish to get it into a meadow as soon as I can. Would a mixture of grasses be better than timothy alone? *W. M. Danby, Ill.* [There is no better grass for moist (not wet) land than timothy. An objection to it, when sown alone, is that it produces little after growth, and the stubble is therefore rather bare. When the soil is dry enough, clover therefore forms a good mixture, to be followed by June or Kentucky Blue grass; but if the soil is too moist for these, as is probable in this instance, then a mixture of Timothy and Red Top should be sown, the latter forming a fine turf.]

**WARM STABLES.**—I have recently erected upon my farm, a barn, size 35 by 47, with shed and horse stable attached, 17 by 30. I have done considerable work, and subjected myself to some expense for the purpose of getting a good underground stable. I think I have one as good as can be found in this part of the country. Is there danger of keeping cattle too warm for their good, if the air is kept pure. *H. S. Norfolk, Conn.* [The temperature of a warm underground stable in winter, is of course much lower than that of ordinary summer air; consequently cattle could not possibly be injured by the lesser warmth alone, in winter. Warm stables are often supposed to, and do injure animals, because that warmth is secured by retaining moisture and bad odors. Let them be dry, or made so by free ventilation, and let all the bad odor of the manure be carried off or prevented by keeping the stable perfectly clean, and no evil can result from the moderate warmth derived from the earth through cellar walls and cellar floors.]

**STRAWBERRIES.**—A friend has a piece of land on the north side of a hill, which is a month later than that on the south side, and as he is desirous of planting it to strawberries, he wishes to know if you can tell him the best variety to plant on such a piece of ground. *T. R. Pawtucket, R. I.* [Probably any of your good hardy sorts would succeed on either piece of ground, such as the Scarlet, Wilson, Triomphe de Gand, Jenny Lind, &c. If any distinction of sorts were made, the more northern varieties would perhaps be placed on the north side, and the southern on the south side.]

**CISTERNS.**—I have a cistern, made of brick between the house and barn, which holds about 75 barrels of water, with a pipe to the house, and also to the barn, which will be exposed to some frost in the cellar. How can it be best protected? *J. W. Y. Connecticut.* [Keep the water in the cistern as warm as practicable, by a cover of at least one foot of earth, for which purpose the cistern should be arched over the top, like an oven, with a hole large enough to admit a man for cleaning—this arch will support an earth covering of a foot or two, or more, without any danger of falling in, if well built. The pipe to the barn cellar is, of course, under ground, and the trough or tub which it supplies, should be either sunk in the earth to within a few inches of the top, or be packed all around with a foot or two of sawdust or tan. A thick plank lid to cover it in severe weather, and opening by hinges, will protect it from freezing.]

**MANURING FRUIT TREES.**—Which is the best season of the year to dig around and manure our apple, peach and quince trees, early in fall or during the spring months? Please tell about what time would be best. *A. S. Fairfield Co., Conn.* [Late in autumn is the best time to apply the manure, the winter and spring rains carrying the enriching portions into the soil. The remainder of the manure may be spaded in in spring. If the application has not been made in autumn, apply the manure now, and dig in during spring. If "digging around" means also cultivation, or simply mellowing the surface, it should be done repeatedly throughout the growing season, and extend as far on each side of the trunk as the height of the tree, and is cheapest done by horse power. This constant cultivation is most important for peach trees.]

**ANALYSIS OF ROOTS.**—Will you or some of the numerous readers of your paper, give the analysis of the various kinds of roots for feeding cattle. *A. F. S. Kingston, N. Y.* [The nutritive value of several kinds of roots, as deduced from analysis, is as follows. The first column gives the quantity of nitrogen in 100 parts of the dried substance; the second the number of pounds to be equal to 100 pounds of good hay—according to Boussingault:—

Swedish Turnips.....	1.83	676
White Sugar Beet.....	1.43	669
Carrots.....	2.40	382
Potatoes.....	1.50	319

Actual experiment made the real nutritive value of the turnips and beets greater than these figures would indicate, while it more nearly agreed with those as given for carrots and potatoes.]

**THE MEALY BUG.**—If through the medium of your paper you can inform me how to exterminate the "mealy bug," which affects some of the plants in my green-house, you will do me a favor. *J. S. C. New-Jersey.* [Different remedies are used. Tobacco water is probably one of the best, applied by means of a syringe. Some plants are more sensitive than others, and may not bear it so strong, in which case the strongest should be diluted. A pound to a pail of water will usually answer. We have been told that a solution of an ounce of camphor in two quarts of alcohol, would effectually destroy these insects. In some instances, where the plant may be encased in muslin or paper, the fumes of burning tobacco may answer. Soap suds will do well for plants not injured by it.]

**EARLY CABBAGE.**—Please to tell the time to plant cabbage so as to have them very early. *D. New-Jersey.* [Sow the seed in a hot-bed in March—the earlier the hot bed, the sooner the crop will be ready for use. Set out in open ground as soon as the soil can be made ready, cultivate well, and such early sorts as Early York and Early Sugarleaf will give good heads by midsummer. It is important to have a deep, very rich soil, and to cultivate it every few days while the crop is growing.]

**PLAN OF A PIGGERY.**—Our correspondent, *J. W. Yale of Meriden, Ct.*, who inquires for a plan for a hog pen, is referred to the second volume of *Rural Affairs*, p. 33, for a complete plan and elevation of the building.

**TREE TOMATO.**—*W. S. S.* The person whom you addressed in relation to seeds of this plant, had gone to "the wars." You will see that it is advertised in this paper by *L. Norris of Windsor, O.*

**THE AGE OF TREES.**—"St. Lawrence" inquires in the last number of the *COUNTRY GENTLEMAN* if the popular belief that the age of trees can be determined by the concentric rings of the wood, is correct? I can give, as some of the "facts" which he calls for, the following:—I slit the bark of a young tree about half a foot down its stem, so that this slit bark could be lifted or raised off without injury or breaking it. I then slipped in, next to the wood, a piece of sheet-lead, going around it. The bark was then brought back to its former place, and kept there a time by tying. The new wood of course formed outside of the sheet-lead. After a lapse of years, the tree was cut down, and the number of rings outside the lead, corresponded with the number of years since its insertion. I have also cut down trees in repeated instances, several years of age, and always found the rings to correspond with the time since they were set out, added to their age at that time.

**BEARDLESS BARLEY.**—In the *Co. GENT.* of Jan. 9th, *R.* wants to know where he can obtain some beardless barley. I have a few bushels, and should be glad to sell it. After having tried it for two years, (I started with a very small quantity of seed,) I am quite willing to dispose of my "stock in trade," and stick to the old variety. The beardless barley is heavier, but I do not think it yields as well as the other kind. And then, there is no market for it. Those who buy for brewing, malting, or pearling, don't want this kind. I think, however, it would make very good feed. But one great objection I have to raising it is, that it thrashes so hard. A machine might separate it from the straw, but it can't be done by the flail—at least that was the case with mine. The heads break very easily from the straw, and the kernel is so completely enveloped in the chaff that it is necessary to literally chop the heads fine to get the grain out. I became exceedingly disgusted with the thing, when I undertook to thrash a small piece I raised last season, and finally gave the straw to my horses, half thrashed. I can see no object in raising this grain, unless one is overrun with rats and mice, in which case—if this is his only crop of grain—he will be likely to starve them out. They would either have to emigrate or die—for they could not shell it fast enough to keep themselves alive. *J. L. R. Jefferson Co., N. Y.*

**BUTTER WORKER.**—A good butter worker ought to be introduced into this section, (*Litchfield Co., Ct.*) as at present the hand is mostly used for this purpose. It must be cheap, durable, simple and efficient. Such an one would pay for itself many times over in one season, from the increased value of the butter. Let us hear of the best in use? or will inventors furnish us a perfect implement.



### Coe's Superphosphate of Lime.

The following letter from Hon. Marshall P. Wilder, one of the most eminent agriculturists in New-England, gives a very gratifying account of some experiments with Coe's Superphosphate of Lime:—

DORCHESTER, Nov. 20, 1861.

DEAR SIR:—I take pleasure in enclosing, for your examination, some facts in regard to the comparative value of the Superphosphate of Lime purchased of you last spring.

#### Experiments on Old Mowing Land.

This land was divided into three equal lots of one-fourth of an acre each, and dressed as follows:

	Hay Product.
No. 1, with one-half cord manure, valued at.....	\$3.00 864 lbs.
No. 2, with 100 pounds Guano, do. ....	3.00 750 lbs.
No. 3, with 100 lbs. Coe's Superphosphate of Lime, valued at, .....	2.50 948 lbs.

#### Experiments with Carrots.

This land was old sward land, turned over last Fall, and was divided into three equal lots of one-eighth of an acre each:

	Product.
No. 1, with 1½ cords manure, valued at.....	\$8.00 75 bush.
No. 2, with 50 lbs. Guano, do. ....	1.50 60 bush.
No. 3, with 50 lbs. Coe's Superphosphate of Lime, valued at, .....	1.25 90 bush.

#### Experiments on Two Acres of Old Meadow Land.

This land had probably never been plowed before. In the month of August last the brush, brakes, hedge, &c., were taken off, the sod reversed, and the surface made as level as practicable. It was then seeded down with foul meadow and red top seed, with 400 lbs. of your Superphosphate of Lime to the acre. The seed came up well, and at this time the grass is so luxuriant and thickly set that it attracts attention at the distance of half a mile or more, and should the grass not be winter-killed with ice, there will no doubt be a fine crop next summer. In this instance, as in many others, the economy of the Superphosphate over common barnyard manure, is evident, the cost of the former being not more than the expense of carting would have been of a sufficient quantity of stable manure to produce a like result.

The Superphosphate of Lime is therefore a valuable fertilizer in the reclamation and renovation of old pasture or meadow lands, and especially so where lands like the above are located a mile or more from the homestead.

Superphosphate of Lime is a valuable article in promoting the growth and increasing the fibrous roots of young trees and grapevines, and when applied in liberal quantities to the roots of bearing trees has a beneficial influence on the size and beauty of the fruit. It is equally useful as a fertilizer for cereals, grasses and vegetables, and from experiments made heretofore, I have hopes that it may prove a preventive of the blast upon young seedling pear stocks, and to the mildew on peas and other plants subject to these diseases.

As a quick and also as a durable fertilizer, I have seen many proofs in past years. I have ever considered it as one of the most economical manures in use.

Yours respectfully,

MARSHALL P. WILDER.

[For the Country Gentleman and Cultivator.]

### FEEDING AND WEIGHING SHEEP.

LUTHER TUCKER & SON—Enclosed please find \$12 more to apply on subscription list of your valuable paper for 1862. You will find no loss of old subscribers—but an increase of new ones. You have a rare faculty of making every subscriber to the Co. GENT., believe that after one year's subscription, he cannot do without it.

I comply with your request to "every one making remittance, to note something, either relating to the crops, the weather, or any thing that may interest." My item for the present time, relates to my manner of weighing sheep—where it is necessary to "sling up" as in weighing with the common "steel-yards" or "balances" of the country. The more general way is to use a strap or rope passing between or back of the fore legs and just before the hind legs, crossing over the back. A heavy hearty sheep in full feed suspended thus, must find it very uncomfortable for the time being, and besides run a great risk of sustaining permanent injury. By my plan a common rope or strap can be used, no matter how narrow—but the wider the better. The "bail straps" of a double harness, with the two ends buckled together, make a good length for a sheep weighing from 125 to 175 lbs.—but not long enough for one weighing 200 lbs.

or over. Drop one end over the head, just under the brisket forward of the fore legs, the other back of the hind legs under the hams. Raise the sides together over the back, or cross them over the back when putting under the brisket and hams. A sheep is so formed that the strap will not slip off, no matter how much he may try to struggle. There is also not the least danger of injury. This plan, however, may be nothing new to many of your readers, but I find it very convenient, often buying sheep by weight, when very fleshy. It is my custom to feed more or less sheep every winter. By the way, why will not our farmers who raise sheep, feed more of their coarse grain and roots to them during the winter season. There is no kind of stock that can be fattened so profitably and easily in cold weather. They will "grind" their own food—all "milling" can be dispensed with. The capital articles in your own paper, and one in particular, in an exchange, upon this subject, ought to bring it forcibly to the mind of every farmer. There is an interest in sheep feeding to one who really takes an interest, that makes it very pleasant. Experiments can be so readily made as to the amount of feed, variety of grain or roots necessary to produce certain results within a given time, the expense, &c., the shape and disposition of the individual sheep best for feeding purposes, the breed, &c.

This winter in beginning to feed my heavy sheep, I have started very light. Still I find by reference to my stock book, that one sheep in 30 days gained 15 lbs.; 1 in 20 days 10 lbs., while others on the same feed gain but 5, 3 or 2 lbs. But enough for the present.

J.

### BERKSHIRE SWINE AND YOUNG SHORT-HORN BULLS FOR SALE.

Berkshire Sows to produce litters in April and May next varying in price from \$20, \$15 and \$10 each, and Boars old enough for propagation, at the same prices. Boxed and delivered on rail car or ship-board.

L. G. MORRIS.

Jan. 23—w&mtf.

Scarsdale P. O., Westchester Co., N. Y.

### NEW AND CHOICEST VEGETABLE AND FLOWER SEEDS. BY MAIL POSTPAID.

The subscriber offers the following selection of RARE SEEDS, on terms to suit the times: The new French Tree Tomato. This has the form of a tree, about two feet high, and is self-supporting. Fruit large, color scarlet, very productive, and of good quality. Also Lester's Perfected, and the Scarlet and Golden Cluster Tomatoes. —The Pomegranate; fruit about the size and color of the Lemon; extra for sweetness. —Asparagus Bean, a variety—the pods attain the length of two to three feet. When young and tender we cook these pods, and serve as asparagus, which are very delicious. —Strawberry Pea, in height about six inches, very prolific, of good size and quality. —New variety of Spring Wheat from Japan; the most productive grain known to us. —Also an extra variety of Red Sweet Corn, Paris Red Cos, and India Lettuce; German Sweet Turnip, Cabbage, Sea Kale, Mammoth Mustard, Japan Pie Melon, Negley's Improved Cucumber, Madras Radish, very choice, fine solid pods for pickling or salad: Dwarf Broom Corn, Hubbard and Pineapple Squash, &c.

Our FLOWER SEEDS will include many of the new and choice varieties, such as Hunt's Sweet Williams, Double Zinnia Elegans, HED-DEWIGI, (new Japan Pink,) Asters, (new and rare sorts mixed,) Hyacinth Flowered Larkspur, Verbena, Acroclonium Roseum, Gail-lardia grandiflora, Chrysanthemum, (new,) Camellia Balsama, Lythum Roseum, Blue Bells of Scotland, Godetia, Bee Larkspur, Prussian and Dwarf Morning Glories, Salpiglossis, Red and Blue Tassal Flower, Green Centered Helianthus, Rose of Heaven, Marvel of Peru, German Stock Gilliflower, Golden Bartonia, Petunia, SOLANUM, (atropurpureum,) a splendid parlor plant; Scarlet Egg Plant, Evening Primrose, Snapdragon, Portulaca, Forget me-not, &c., &c.

Any person may select ONE PAPER of either of the above varieties of Seeds, and remit to us ONE DIME, or 5 papers 25 cents; ten papers 40 cents; twenty papers, 75 cents; or thirty papers for \$1. You can select a part from the Vegetable and a part from the Flower Seeds to make out these numbers, if you choose. Send current bills, small silver or gold coin, or United States postage stamps.

Jan. 23—w2tm2t.

L. NORRIS, Windsor, Ashtabula Co., Ohio.

### COE'S SUPERPHOSPHATE OF LIME.—Office 19 Broad-Street, Boston.

For Testimonials of the value of this article, address COE & CO as above, April 4—w17.

**ALBANY COUNTY AG. SOC'Y ELECTION.**

At a regular meeting of the Albany County Agricultural Society, held at the City Hall on the 8th of January, 1862, the Annual Election for Officers for the ensuing year, was postponed till Wednesday, the 12th day of February, 1862, at 12 M., at the Mayor's Court Room, City Hall, Albany. A full attendance is desired.

By order,  
Jan. 16—w4mtf.

R. H. BINGHAM,  
Secretary pro. tem.

**THOROUGH-BRED AYRSHIRES, DEVONS & ALDERNEYS FOR SALE.**

'BESSIE,' Ayrshire, 3 years old, Heifer Calf by her side—a very fine heifer. Also 1 and 2 year old BULLS. Prices to suit the times.

ALFRED M. TREDWELL,  
Madison, Morris Co., N. J.

Jan. 16—w2mtf.

**IMPORTANT TO CHEESE MAKERS.****THE ONEIDA CHEESE VAT,**

Ralph's Patent, is superior in practical utility, material and workmanship to any in use. Though but recently patented and introduced to the public, the demand for them is unprecedented. Circulars containing a general description, sizes and prices, sent by mail on application to WILLIAM RALPH, Holland Patent, N. Y., of whom State, County and Town rights for this valuable improvement may be obtained on reasonable terms.

Jan. 16—w4mtf.

**THE NEW-YORK AGRICULTURAL WAREHOUSE**

AND

**SEED STORE.**

189 & 191 Water-St., New-York.

HORSE POWERS, THRESHERS, and CLEANERS, of our own and other manufacturers.

HAY PRESSES for hand and power.

ICE TOOLS of all kinds.

STUMP PULLERS of several patents.

IRON AND BURR STONE FARM MILLS.

FANNING MILLS of the best patterns.

CORN SHELLERS of new and improved patterns, including ALLEN'S and BURRALL'S Patent.

HAY, STRAW and STALK CUTTERS.

ROOT CUTTERS of various kinds.

PATENT CYLINDER PLOWS of all sizes.

PRINDLE'S PATENT STEAMER for cooking food for stock.

POP CORN of superior quality.

The largest assortment of Agricultural and Horticultural Implements, Fertilizers, Field and Garden Seeds, in this city.

Sole Agents in the United States for THORLEY'S FOOD FOR CATTLE. R. H. ALLEN & CO., Successors to R. L. Allen.

Jan. 9—w4mtf.

**BERKSHIRE PIGS FOR SALE—OF PURE BREED.**

\$5 each when six weeks old.

WM. J. PETTEE,  
Lakeville, Conn.

Jan. 9—w4mtf.

THOS. WOOD continues to ship to any part of the Union, his celebrated PREMIUM CHESTER CO. WHITE HOGS, in pairs not akin, at reasonable terms. Address, PENNINGTONVILLE, Chester Co., Pa.

Jan. 10—w4mtf.

**CHOICE POULTRY FOR SALE.**

WHITE LEGGED DERBY GAME FOWLS, bred from stock obtained a few years since at Knowsby, England.

STREAKED-BREADED BLACK-RED GAME FOWLS, bred chiefly from stock obtained of the late Lord Berwick in 1859.

TOULOUSE GESE, bred from stock imported from France by A. W. Austin, Esq. These are considered in Europe the largest of all geese, and are much esteemed by epicures for the excellence of their flesh.

Price of the Game Fowls, \$5 per pair; of the Geese, \$12 per pair. All the stock is of the best quality. SANFORD HOWARD,  
Nov. 14—w3tm2t. Office of the Boston Cultivator, Boston, Mass.

**BRIGHT ON GRAPE CULTURE.**

SECOND EDITION.

**THIRTY PAGES OF NEW MATTER,**

with the experience of 1860 and '61, being the most important part of the work. Indispensable to all GRAPE GROWERS. Sent by mail, free of postage, on receipt of the price, 50 cents, in stamps. Address

WILLIAM BRIGHT, Box 138 Philadelphia P. O., Pa.  
July 4—w4m3m.

**DOWNING'S FRUIT AND FRUIT TREES.**

Just Published and for Sale at this Office—sent by mail, postpaid, at \$1.75.

**100,000 BARRELS OF THE LODI MANUFACTURING CO'S POU DRETTE,**

FOR SALE BY

JAMES T. FOSTER,

No. 66 Cortlandt-St., New-York.

THE large facilities which they enjoy by exclusive contract for all the night soil of the city of New-York, and the large capital invested in their extensive works, enable them to manufacture an article which is superior to any other fertilizer in market, taking cost and YIELD into consideration. It will be sold at the usual price of \$1.50 per barrel for seven barrels or over, delivered free in New-York city.

Please take notice that the office and sale of this Company's Poudrette is changed from Messrs. Griffing, Brother & Co., No. 60 Cortlandt-Street, to No. 66 CORTLANDT-STREET.

Other brands of what purports to be Poudrette are in market, put up in barrels to resemble this. Beware of frauds—buy that only which has the brand of the Lodi Manufacturing Co. Any other article is comparatively worthless.

We call attention to the following experiences of practical farmers in different sections of the country:

NORTH PEMBROKE, MASS., Oct. 7, 1861.

James R. Dey, Esq., President of the Lodi Manufacturing Co.:

Dear Sir—The early autumnal frosts for several years past have seriously injured our corn crops, and rendered it necessary for farmers in this section to seek some fertilizer to give their crops an early start, in order to bring them to maturity in season to avoid that calamity. Having experimented with Guano, Superphosphate of Lime, etc., etc., with indifferent success, in the spring of 1860 I purchased four barrels of the Lodi Manufacturing Co.'s Poudrette, which I applied principally to my corn crop, with the most satisfactory results. This was the first Poudrette ever introduced into this vicinity. Last spring I procured from your branch office in Boston about 30 barrels, the most of which I sold to my neighbors, who had witnessed the effect of my last year's trial, which, so far as heard from, has given universal satisfaction. To further test the efficacy of your Poudrette, this season I plowed about two acres of light sandy soil, which had lain in grass about six years (the last crop of grass being very light.) This I planted with corn and potatoes, applying about four and a half barrels of Poudrette, with no other manure, except a handful of ashes to each hill at the first hoeing, and from present appearances we shall have a better crop than on a field of like soil where we applied twenty-five loads of manure to the acre. Its effects on garden vegetables are equally apparent. I am, very respectfully, yours,

HORACE COLLAMORE.

MERRILL, ME., Oct. 11, 1861.

Lodi Manufacturing Co.:

Sirs—I bought of your agents, Cross & Newell, two barrels of your Poudrette, and in using the first I got sick of it, and sold the other barrel. But the one that I used I tried the principal part on potatoes. I used about half a pint to the hill, and the yield was equal to those planted on manure at the rate of twenty loads to the acre. My neighbor who bought the other barrel says if he had bought five barrels more he would have saved the price of twenty barrels. Yours, &c.,  
V. B. PAUL.

WALDO, ME., Oct. 12, 1861.

To the Lodi Manufacturing Co.:

Gentlemen—Last spring I bought from Cross & Newell one barrel of your Poudrette, as an experiment, with but very little faith in its utility. I put it on 6 rows of corn in different parts of the field, after manuring with barn-yard manure in the usual way—at the second time hoeing, where I put the Poudrette the corn was twice as large as the rest of the field, and this now is one-third heavier, and has ripened about eight days earlier. I think it the very thing we want for raising corn in this country, and shall use it more extensively another year.

Yours, &c., WELLINGTON SHOREY.

SMYRNA, DEL., Oct. 1, 1861.

Gentlemen—I had heard of the Poudrette manufactured by the Lodi Manufacturing Co., and thought I would try a small quantity on a lot of land intended for corn, and as I could not get it nearer than Philadelphia, I went and bought of the agent twenty barrels, and applied two barrels to the acre, dropping the corn and a handful of Poudrette in each hill. I left out a part of two rows and put no Poudrette, to ascertain if there was any value in it, and noticed those two rows during the season; and where the Poudrette was used the corn was decidedly the best, and I have no hesitation in saying it is a good manure for corn. I am certain I made from one-third to one-half more by using it. Yours, respectfully,

JOHN G. BLACK.

CHESTER, PA., Sept. 14, 1861.

To the Lodi Manufacturing Co.:

Gentlemen—I purchased this season of Messrs. Baker & Co., eleven barrels of Poudrette, and one bag of Phosphate, which I put on my corn. I marked the place where I put the Phosphate, which, when started, seemed ahead, but now the corn where the Poudrette was on is much the best. Last year I used Allen & Needle's New Fertilizer, which did no good at all, as the corn done better without the manure. I think the Poudrette made by your Company the cheapest manure in use.

Yours, &c., A. R. PERKINS.

The Company's pamphlet, containing directions for its use, with other valuable information and the experience of over one hundred farmers, will be sent free to any one applying for the same. Address

"JAMES T. FOSTER,"  
Care of Lodi Manufacturing Co.,  
66 Cortlandt-St., New-York.

Jan. 2—w13tm3t.



# THE ILLUSTRATED 1862. ANNUAL 1862. REGISTER OF RURAL AFFAIRS.

THE EIGHTH NUMBER, for 1862, of THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS has now been issued from the press. In the attractiveness and value of its contents we do not think it has been surpassed by any preceding number. We submit below a partial abstract of its contents, which will show their variety and the extent to which they are illustrated—the present number of the ANNUAL REGISTER containing more than

## One Hundred and Sixty Engravings.

TERMS—as heretofore: SINGLE COPIES, postpaid, TWENTY-FIVE CENTS; ONE DOZEN COPIES, postpaid, TWO DOLLARS; ONE HUNDRED COPIES, FIFTEEN DOLLARS, and larger quantities at a farther reduction.

### PARTIAL ABSTRACT OF CONTENTS.

Among other valuable chapters, the ANNUAL REGISTER for 1862 will contain the following:—

- I. FARM BUILDINGS—THIRTY ENGRAVINGS and Four Designs.
  1. General Considerations.
  2. Estimating the Capacity of Barns.
  3. Form of Farm Buildings.
  4. How to Plan a Barn.
  5. Barn Basements.
  6. Cost of Barns.
  7. Design One—Barn for Fifty Acres or Less.
  8. Design Two—Barn for Seventy-Five to a Hundred Acres.
  9. Tool Rooms and Details in Stable Construction.
  10. Design Three—A Large Three-Story Barn.
  11. Design Four—A Small Three-Story Barn.
  12. Various Details.
- II. VEGETABLE PHYSIOLOGY, or How Plants Grow—SIXTY-ONE ENGRAVINGS.
  1. The First Formation of the Embryo.
  2. The Seed and the Requirements for its Germination.
  3. Process of Germinating in Plants having One and Two Seed Leaves.
  4. Mode of Growth and Structure of the Plant or Tree.
  5. The Root—Layering; Cuttings; Transplanting
  6. The Stem and Branches.
  7. The Buds and Leaves.
  8. The Process of Growing.
  9. Principles of Grafting and Budding.
  10. Flowers—their Organs; the Crossing of Different Varieties.
  11. Species and Varieties.
- III. THE GRASSES—THIRTEEN ENGRAVINGS.
  1. Importance of the Grass Crop.
  2. Descriptions of the more Common Species.
  3. Nutritive Value of Hay.
  4. Management of Grass Land.
  5. Suggestions in Hay-Making.

\* This article includes plain and concise descriptions of no less than TWENTY-TWO of the different grasses, with the peculiarities of which every farmer should be familiar—eleven of them accompanied by carefully drawn illustrations.
- IV. LIGHTNING RODS—THIRTEEN ENGRAVINGS.
  1. Essential and Non-Essential Points in their Erection.
  2. Materials and Connections.
  3. Length, Height and Supports—Stiffeners above the Roof.
  4. Entering the Earth.
  5. The Copper Rod—Various Errors—Cost of Rods.
- V. BALLOON FRAMES—TWENTY-FOUR ENGRAVINGS.
  1. Their Merits and Practicability.
  2. Method of Raising—the Sills, Studs and Wall-Plate
  3. Directions for One-Story Buildings.
  4. Directions for Two or Three Story Buildings.
  5. Siding, Lining and Construction of Partitions.
  6. Framing Large Barns.
- VI. THE APIARY—THIRTEEN ENGRAVINGS.
  1. Advantages of the Movable-Comb Hive.
  2. Descriptions of Different Kinds.
  3. Management of Bees.
- VII. THE ORCHARD AND GROUNDS—FOURTEEN ENGRAVINGS.
  1. Summer Pears—Old and New Sorts.
  2. The Value of Orchards.
  3. Training Weeping Trees.
  4. Removing Large Trees.
- VIII. THE FARM—HOW FORTUNES ARE SOMETIMES SUNK.
- IX. FRUITS AND FRUIT CULTURE—ONE ENGRAVING.
  1. Rules for Pruning Grapes.
  2. Directions for Transplanting.
  3. Root-Grafting the Grape.
  4. Depredators and Diseases.
  5. Apples for the West.
  6. Selection of Hardy Grapes.
  7. Young Cherry Trees.
  8. High Prices for Pears—The Glout Morceau.
  9. Broadcast Cultivation—Apples in Wisconsin.
  10. Hardy and Tender Trees—Culture of the Blackberry.
  11. Culture of Dwarf Apples.
  12. Transplanting Strawberries.
- X. THE DAIRY.
  1. On Cheese-Making by Beginners.
  2. Hiram Mills' Way of Making Butter.
  3. Two Valuable Rules in Making Cheese.
  4. Butter Dairies of Chenango and Delaware Counties.
- XI. DOMESTIC ANIMALS—TWO ENGRAVINGS.
  1. The Best Doctor for Animals.
  2. Shropshire Down Sheep.
  3. Wintering Sheep.
  4. Training Cattle to Jump.
  5. Registering Sheep—Care of them in Spring.
  6. To Prevent Horses Kicking—Teaching them to Canter.
  7. Making Cheap Beef—Beginning Winter Right.
  8. Regularity in Feeding—Profits of Sheep Raising
  9. Training Draft Animals—Cattle Racks.

10. Swine Fed on Skim Milk—Treatment of Sows with Young Pigs.

11. Relieving Choked Cattle—Weaning Lambs.

## XII. RURAL ECONOMY—THREE ENGRAVINGS.

1. Nails, Nuts, Screws and Bolts.
2. Farmer's Tools.
3. The Union Washing Machine.
4. Hay and Grain Racks.
5. Preserving Shingles.
6. Facts for Poor Farmers.
7. Time for Cutting Timber
8. Durability of Posts.
9. To Keep Plows Bright.
10. Sawing and Thrashing by Horses.
11. Provide Domestic Conveniences.
12. The Use of Rawhide.
13. How to Tan Rawhide.
14. Sap Falls.
15. The Cost of Fences.
16. Use of the Clod-Crusher.

## XIII. USEFUL TABLES

This, preceded by the usual Calendar pages and Astronomical Calculations, forms a book which is certainly cheap at its retail price, and the Publishers, with a view of rendering its circulation still wider and larger than that of any previous Number, are prepared, as above intimated, to offer the most liberal Terms for its introduction in quantities, either to Agents, Agricultural Societies, Nurserymen, Dealer in Implements and Seeds, or any others who take an interest in the dissemination of useful reading, and in the promotion of Rural improvement.

Address all orders or inquiries to the publishers.

LUTHER TUCKER & SON,  
ALBANY, N. Y.

August 1, 1861.

## STEEL PLOW

We are now manufacturing a superior **Steel Plow**, intended for general use. Some of the advantages it possesses over the cast iron plow, are lightness of draught, durability, and freedom from clogging, or sticking in heavy, clayey sticky or tenacious soils. The part most exposed to wear are so constructed that they may be readily repaired by any blacksmith.

We would refer to the following persons who have them in use:

John Johnston, Geneva, N. Y.; Wm. Sumner, Pomaria, S. C.; I. C. Ellis, Lyons, N. Y.; Col. A. J. Sumner, Long Swamp, Florida; A. J. Bowman, Utica, N. Y.; A. Bradley, Mankato, Minnesota; A. L. Fish, Litchfield, N. Y.; Volney Owen, Union, Ill.; John Slichter, French Creek, N. Y.

"Molaw Valley Clipper," No. 1, full trimmed, all steel... \$15.00

do. do. with cast point... 14.00

"Empire," No. 1, with cast point, full trimmed... 15.00

For Three-Horse Plows... \$1.50 extra.

For Adjustable Beams... 1.00 do.

We also manufacture Sayre & Klink's Patent Tubular Shank

## STEEL CULTIVATOR TEETH.

These Teeth are intended to supersede the old style of wedge teeth and teeth with cast iron heads. They are not liable to become loose in the frame, like the former, nor to break, like the latter. They are as readily attached to the frame as any form of tooth.

## SAYRE'S PATENT HORSE HOE.

This implement is considered to be superior to any other for cultivating Corn, Cotton, Tobacco, Potatoes, Hops, Broom Corn, Nurseries, and all crops planted in rows or drills.

Steel Shovel Blades and Cultivator Points made, and all kinds of Swaging and Plow work done to order.

## SEND FOR A CIRCULAR.

REMINGTONS, MARKHAM & CO.,  
E. REMINGTON & SONS, }  
BENJAMIN P. MARKHAM, }  
GEO. TUCKERMAN. }  
Alton, Herkimer Co., N. Y.  
March 21—w&mtf.

## THE YOUNG FARMER'S MANUAL—

With Practical Directions for Laying Out a Farm and Erecting Buildings, Fences, and Farm Gates. Embracing also the Young Farmer's Workshop: giving full directions for the selection of good Farm and Shop Tools, their Use and Manufacture, with numerous Original Illustrations of Fences, Gates, Tools, etc., and for performing nearly every branch of farming operations. By S. EDWARDS TODD. Price \$1.25, by mail post paid. For sale by L. TUCKER & SON, Co. Gent. Office, Albany, N. Y.

## AMERICAN WEEDS AND USEFUL PLANTS

—Being a 2d and Illustrated edition of Agricultural Botany: an enumeration and description of useful plants and weeds, which merit the notice or require the attention of American agriculturists. By Wm. Darlington, M. D. Every Farmer or Farmer's Son who wishes to know the names and character of the plants growing on his farm, should study this book. For sale at the office of the Co. Gent. and Cultivator.  
L. TUCKER & SON.

## THE FARMER'S LIBRARY.

We know of no works which afford so much Practical Information on the subject of American Agriculture, which can be procured for double the cost, as the Third Series of "THE CULTIVATOR," the 8th vol. of which is now completed. The price of the Eight volumes, handsomely bound in muslin, is 75 cents each at this office, or \$1.00 each sent by mail, post paid. Either volume from 1 to 8, can be had separately at the same price. The Eight volumes will be sent per Express to any part of the country, on receipt of \$6.

**BEMENT'S AMERICAN POULTERER'S COMPANION,**  
price \$1.25—Browne's American Poultry-Yard, price \$1—Miner's Domestic Poultry-Book, price 75 cents. For sale at the office of this paper

## CONTENTS OF THIS NUMBER.

## THE FARM.

Seasonable Suggestions for Winter.....	41
Room for Tools.....	42
Farming as a Business Operation.....	42
Things Necessary for Home Comfort.....	43
Pennsylvania Farm School.....	43
Manufacture of Maple Sugar.....	44
Cranberries on High Land.....	44
Hints on Farm Management.....	45
Agricultural Societies.....	45
Agricultural Notes in Monroe Co., by S. E. TODD.....	46
The Culture of Wheat.....	46
Preparing Soil for Wheat.....	46
Growing Wheat on Sod Ground.....	46
Shallow Culture for Wheat.....	47
Surface Manuring for Wheat.....	47
Experiments in Deep Plowing, by HIRAM WALKER.....	47
Hints on Growing Mangel Wurtzels, by J. M. HARPER.....	48
Osage Orange Hedges in New Jersey, by THOMAS BELL.....	49
Farm Mills, Washing Machines, and Root Cutters, by A. BUCK- WHEAT FARMER.....	49
The Spanish Chestnut, by WM. PARRY.....	49
St. Lawrence County—Northern New York, by ST. LAWRENCE.....	50
Refined Sorghum Molasses.....	50
Farm Accounts, Diary, &c., by ST. LAWRENCE.....	50
The Valley of the Connecticut, by H. C. W.....	51
The Farms of T. G. Huntington, Milo T. Smith and Paolo Lathrop.....	51
The Promise of the Northwest, by C. T. C.....	52
Pumpkins and Apples for Cattle, by JNO. TALCOTT.....	53
Corn after Buckwheat, by E. L. HOLDEN.....	53
Value of Cornstalks as Feed for Cattle, by E. SHERRELL.....	54
Corn and Turnips Together, by TAPE LINE.....	54
Farming Implements, by T. B. MINER.....	54
Black English Willow for Protection, by W. H. GARDNER.....	54
Various Hints on Rural Economy.....	56
Notes for the Month.....	64
Inquiries and Answers.....	67
Experiments with Coe's Superphosphate of Lime, by M. P. WIL- DER.....	69

## RURAL ARCHITECTURE.

Design for a Farm House.....	56
------------------------------	----

## HORTICULTURAL DEPARTMENT.

Patent Moss Basket, by A. CHAMBERLAIN.....	57
Productive Apples.....	57
Suggestions about Dwarf Pears.....	57
The American Grapes.....	58
Plants in Bay Windows.....	58
Raising Asparagus in Queens County.....	58
The Honey and Yellow Locust, by W. R. PRINCE.....	58
Rabbits Barking Fruit Trees, by G. H. WILSON.....	58
Grafting the Grape.....	59
Fruit Growers' Society of Western New York.....	59
Best Mode of Training Apple Trees.....	59

## THE GRAZIER AND BREEDER.

Stock Farming in Ohio, by "W."—How Indian Corn is Convert- ed into Beef and Pork.....	60
Cattle and Pig Feeding on Wholesome Principles.....	60
Bots—Prevention Better than Cure, by ST. LAWRENCE.....	61
To Avoid Running Out of Hay.....	61
Which Variety of Swine is Best? by E. MARKS.....	61
Feeding and Weighing Sheep, by J.....	68

## THE BEE-KEEPER'S DEPARTMENT.

The Construction of Bee-Hives.....	59
Test of Purity of Italian Bees.....	59

## THE DAIRY DEPARTMENT.

Amount of Cheese per Cow.....	62
Profits of Cheese, Butter and Milk.....	62
Letter from a Pennsylvania Butter Maker, by H. EACHUS.....	62
A Chenango County Dairy, by JOHN SHATTUCK.....	62

## DOMESTIC ECONOMY.

How to Make Yeast and Good Bread, by H. W. H.....	63
How to Remove Slivers from the Eye, by AMOS FISH.....	63
How to Make Cider Wine, by JOHN C. GITCHELL.....	63
Union Washing Machine and Universal Clothes Wringer, by P.....	63
Recipe for Corn Bread.....	63

## ILLUSTRATIONS.

Heel-piece of Gate.....	41	Farm House.....	56
Tool Rooms.....	42	Patent Moss Basket.....	57

CHOICE NEW BOOKS  
FOR THE COUNTRY.

Suburban Parks and Gardens of Paris, designed for lay- ing out country places, drawn to a scale, 50 colored plates, \$12.00	
Suburban Houses, drawn to a scale, 50 colored plates, ....	12.00
Country Houses, Villas, Outbuildings, &c., in every style, 100 colored plates.....	20.00
Landscape Gardening, by Downing, Loudon, and others..	
Villa Gardens of England, by Loudon, several hundred designs and plans.....	3.00
Rustic Adornments for Homes of Taste, for out-door and in-door decorations—plates.....	5.00
Besides all the NEW and STANDARD WORKS on every subject of in- terest to those living in the country. All the	

## FOREIGN AND AMERICAN MAGAZINES, &amp;c.

New or old Works obtained and imported to order.

## CHAMBERLAIN'S PATENT MOSS BASKETS,

Patent Metallic Fern and Propagating Cases.

C. B. MILLER, Horticultural Agent,

Jan. 23—wtf.

29 Broadway, New-York.

## Business Notices.

## THE COUNTRY GENTLEMAN.

The Best Agricultural Journal in the U. S. States.

16 PAGES QUARTO—WEEKLY.

The Nineteenth Volume of this well-known weekly Agricultural Journal commences the first week in January, 1862. THE COUNTRY GENTLEMAN has been pronounced, both at home and abroad, "the Best of all the American Newspapers devoted to matters of Rural Economy." Its contributions from Practical Farmers far exceed those of any similar journal, and hence its great value to the Working Farmer.

TERMS.—Single copy, \$2 a year—Five copies, \$3—Ten copies, \$15—all payable in advance.

## THE CULTIVATOR.

32 PAGES OCTAVO—MONTHLY.

This Periodical enters upon its Twenty-ninth year with 1862. It is now made up from the COUNTRY GENTLEMAN—those articles being particularly selected which shall present in each number the greatest variety of brief, practical hints and suggestions, calculated to be of the widest interest and most general utility. It has long been the belief of the Editors, that what one Farmer has done another can do—hence their aim is to transcribe, either themselves or through their correspondents, the exact systems which the best and most successful of our farmers are now practically following, by which they have made money and enriched their soils—to explain the modus operandi, and set others in the way of following the example. We may assert, without exaggeration, that it contains scarcely a page, from January to December, on which may not be found some Fact from the Actual Practice of the writer, of far greater real value to the careful reader than the year's subscription.

TERMS.—Single copy, Fifty cents a year—Eight copies, (with a copy of the Rural Register to the Agent,) \$3—Ten copies of THE CULTIVATOR, and Ten of the RURAL REGISTER, with an extra copy of each to the Agent, \$5, and any larger number at the same rate.

Subscribers in the British Provinces, will add 25 cents a year to the price for the Country Gentleman, and Six cents to The Cultivator, for postage to the lines.

Papers for Club Subscribers will be addressed to individuals at as many different post-offices as may be required.

BACK VOLUMES.—A New Series of THE CULTIVATOR was commenced in 1833, and the Nine Volumes of the New Series are for sale, handsomely bound in muslin, at 75 cents per vol. at the office, or \$1 per vol. sent postpaid by mail. No volume, containing an equal amount of valuable practical information to the Farmer, can be obtained for double the price.

THE ILLUSTRATED  
Annual Register of Rural Affairs.

144 PAGES—ANNUALLY.

This useful little volume was first issued for 1855, and has been continued each year since. Number Eight for 1862, is already before the public, containing Chapters on Farm Buildings, the Growth of Plants, the Grasses, Lightning Rods, Balloon Frames, Bee-Keeping, Fruits and Fruit Culture, the Dairy, Domestic Animals, Rural Economy, Useful Tables, &c., illustrated with 160 Engravings.

TERMS.—Single copy, 25 cents—One Dozen, \$2—sent by mail postpaid. The whole Eight numbers, from the commencement, may be had for \$1.60, sent postpaid.

## "RURAL AFFAIRS."

Under this title, new editions of the first Six numbers of the Illustrated Annual Register of Rural Affairs, have been issued in two handsome volumes, on fine paper, with large margin, with the omission of the Calendar pages and Advertisements. Price, handsomely bound, by mail, postpaid, \$1 per volume. Address

LUTHER TUCKER & SON, Albany, N. Y. .

Albany, Jan. 1, 1862.

NUTTING'S FANNING AND ASSORTING  
MACHINE

Has recently undergone thorough and valuable improvement, and for strength, durability, speed and perfection of work it is unequalled. It chaffs, cleans, separates and ASSORTS for seed all kinds of grain, pulse and grass seeds, and separates oats from wheat, from barley, or from peas—thistles from oats or wheat—timothy from clover, &c., &c., and

All in the most Perfect and Rapid Manner Possible.

It ANNUALLY SAVES THE FARMER MORE THAN ITS COST. Price, \$30. For Rights and for Machines address WALLACE WARREN, Utica, N. Y. April 11—wtf.